

263365us-seq-list-082310 (2).txt  
SEQUENCE LISTING

<110> weill, Mylene  
Fort, Philippe  
Raymond, Michel  
Pasteur, Nicole

<120> NOVEL ACETYLCHOLINESTERASE GENE RESPONSIBLE FOR  
INSECTICIDE RESISTANCE AND APPLICATIONS THEREOF

<130> 263365US0XPCT

<140> 10/518,072

<141> 2004-12-16

<150> FR 02/07622

<151> 2002-06-20

<150> FR 02/13799

<151> 2002-11-05

<160> 150

<170> PatentIn version 2.1

<210> 1

<211> 524

<212> PRT

<213> Anopheles gambiae

<400> 1

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Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His Pro Arg Pro
      35          40          45
Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro Pro Asn Ser
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Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr
      65          70          75          80
Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn
      85          90          95
Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp
      100          105          110
Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr
      115          120          125
Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu
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Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly Thr Pro Glu
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Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser Arg Val Thr  
180 185 190

Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu His Leu Leu  
195 200 205

Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu Gln Ser Gly  
210 215 220

Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu Ala Thr Leu  
225 230 235 240

Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys Pro His Glu Pro Ser  
245 250 255

Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp Pro His Val  
260 265 270

Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe Pro Phe  
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Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln Arg Ser  
290 295 300

Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr Gly Ser Asn  
305 310 315 320

Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu Leu Leu  
325 330 335

Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu Gln Ala  
340 345 350

Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln Ala Ile  
355 360 365

Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro Asn Ser Asn  
370 375 380

Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr Cys Asn  
385 390 395 400

Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn Val Tyr  
405 410 415

Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro Arg Trp  
420 425 430

Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly Glu Pro  
435 440 445

Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp Phe Ser Arg  
450 455 460

Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn Pro Asn  
465 470 475 480

Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp Pro Lys His Thr Ala  
485 490 495

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His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Ser Phe Val Gly  
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<211> 1932  
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<221> CDS  
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1 5 10 15  
aac att tca gac gca ttt ttt aca cca tat ata ggt cac ggt gag tcc 96  
Asn Ile Ser Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser  
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gta cga att ata gat gcc gag ttg ggc acg ctc gag cat gtc cac agt 144  
Val Arg Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser  
35 40 45  
gga gca acg ccg cgg cga cgc ggc ctg acg agg cgc gag tca aac tcg 192  
Gly Ala Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser  
50 55 60  
gac gcg aac gac aac gat ccg ctg gtg gtc aac acg gat aag ggg cgc 240  
Asp Ala Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg  
65 70 75 80  
atc cgc ggc att acg gtc gat gcg ccc agc ggc aag aag gtg gac gtg 288  
Ile Arg Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val  
85 90 95  
tgg ctc ggc att ccc tac gcc cag ccg ccg gtc ggg ccg cta cgg ttc 336  
Trp Leu Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe  
100 105 110  
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Arg His Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr  
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Thr Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp  
130 135 140  
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Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp  
145 150 155 160  
tgt ctg tac att aac gtg gtg gca ccg cga ccc cgg ccc aag aat gcg 528  
Cys Leu Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala  
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gcc gtc atg ctg tgg atc ttc ggc ggc ggc ttc tac tcc ggc acc gcc 576

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atc gtg gtg tcg ctg cag tac cgc gtg gcc agt ctg ggc ttc ctg ttt	Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe	210	215	220	672
ctc ggc acc ccg gaa gcg ccg ggc aat gcg gga ctg ttc gat cag aac	Leu Gly Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn	225	230	235	720
ctt gcg cta cgc tgg gtg cgg gac aac att cac cgg ttc ggt ggc gat	Leu Ala Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp	245	250	255	768
ccg tcg cgt gtg aca ctg ttc ggc gag agt gcc ggt gcc gtc tcg gtg	Pro Ser Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val	260	265	270	816
tcg ctg cat ctg ctg tcc gcc ctt tcc cgc gat ctg ttc cag cgg gcc	Ser Leu His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala	275	280	285	864
atc ctg cag agc ggc tcg ccg acg gca ccg tgg gca ttg gta tcg cgc	Ile Leu Gln Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg	290	295	300	912
gag gaa gcc aca cta aga gca ctg cgg ttg gcc gag gcg gtc ggc tgc	Glu Glu Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys	305	310	315	960
ccg cac gaa ccg agc aag ctg agc gat gcg gtc gag tgc ctg cgc ggc	Pro His Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly	325	330	335	1008
aag gac ccg cac gtg ctg gtc aac aac gag tgg ggc acg ctc ggc att	Lys Asp Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile	340	345	350	1056
tgc gag ttc ccg ttc gtg ccg gtg gtc gac ggt gcg ttc ctg gac gag	Cys Glu Phe Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu	355	360	365	1104
acg ccg cag cgt tcg ctc gcc agc ggg cgc ttc aag aag acg gag atc	Thr Pro Gln Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile	370	375	380	1152
ctc acc ggc agc aac acg gag gag ggc tac tac ttc atc atc tac tac	Leu Thr Gly Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr	385	390	395	1200
ctg acc gag ctg ctg cgc aag gag gag ggc gtg acc gtg acg cgc gag	Leu Thr Glu Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu	405	410	415	1248
gag ttc ctg cag gcg gtg cgc gag ctc aac ccg tac gtg aac ggg gcg	Glu Phe Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala	420	425	430	1296

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aac ccg aac agc aac cgg gac gcg ctg gac aag atg gtg ggc gac tat 1392
Asn Pro Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr
450 455 460

cac ttc acc tgc aac gtg aac gag ttc gcg cag ccg tac gcc gag gag 1440
His Phe Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu
465 470 475 480

ggc aac aac gtc tac atg tat ctg tac acg cac cgc agc aaa ggc aac 1488
Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn
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ccg tgg ccg cgc tgg acg ggc gtg atg cac ggc gac gag atc aac tac 1536
Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr
500 505 510

gtg ttc ggc gaa ccg ctc aac ccc acc ctc ggc tac acc gag gac gag 1584
Val Phe Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu
515 520 525

aaa gac ttt agc cgg aag atc atg cga tac tgg tcc aac ttt gcc aaa 1632
Lys Asp Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys
530 535 540

acc ggg aat cca aat ccc aac acg gcc agc agc gaa ttc ccc gag tgg 1680
Thr Gly Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp
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ccc aag cac acc gcc cac gga cgg cac tat ctg gag ctg ggc ctc aac 1728
Pro Lys His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn
565 570 575

acg tcc ttc gtc ggt cgg ggc cca cgg ttg agg cag tgt gcc ttc tgg 1776
Thr Ser Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp
580 585 590

aag aag tac ctt ccc cag cta gtt gca gct acc tcg aac cta cca ggg 1824
Lys Lys Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly
595 600 605

cca gca ccg cct agt gaa ccg tgc gaa agc agc gca ttt ttt tac cga 1872
Pro Ala Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg
610 615 620

cct gat ctg atc gtg ctg ctg gtg tcg ctg ctt acg gcg acc gtc aga 1920
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 35      40      45
Gly Ala Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser
 50      55      60
Asp Ala Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg
 65      70      75      80
Ile Arg Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val
 85      90      95
Trp Leu Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe
100      105      110
Arg His Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr
115      120      125
Thr Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp
130      135      140
Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp
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Cys Leu Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala
165      170      175
Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala
180      185      190
Thr Leu Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val
195      200      205
Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe
210      215      220
Leu Gly Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn
225      230      235      240
Leu Ala Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp
245      250      255
Pro Ser Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val
260      265      270
Ser Leu His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala
275      280      285
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290      295      300
Glu Glu Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys
305      310      315      320
Pro His Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly
325      330      335

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263365us-seq-list-082310 (2).txt

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 Thr Pro Gln Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile  
 370 375 380  
 Leu Thr Gly Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr  
 385 390 395 400  
 Leu Thr Glu Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu  
 405 410 415  
 Glu Phe Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala  
 420 425 430  
 Ala Arg Gln Ala Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp  
 435 440 445  
 Asn Pro Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr  
 450 455 460  
 His Phe Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu  
 465 470 475 480  
 Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn  
 485 490 495  
 Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr  
 500 505 510  
 Val Phe Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu  
 515 520 525  
 Lys Asp Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys  
 530 535 540  
 Thr Gly Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp  
 545 550 555 560  
 Pro Lys His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn  
 565 570 575  
 Thr Ser Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp  
 580 585 590  
 Lys Lys Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly  
 595 600 605  
 Pro Ala Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg  
 610 615 620  
 Pro Asp Leu Ile Val Leu Leu Val Ser Leu Leu Thr Ala Thr Val Arg  
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 Phe Ile Gln

## 263365us-seq-list-082310 (2).txt

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 Asn Ile Ser Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser  
 20 25 30  
 gta cga att ata gat gcc gag ttg ggc acg ctc gag cat gtc cac agt 144  
 Val Arg Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser  
 35 40 45  
 gga gca acg ccg cgg cga cgc ggt ctg acg agg cgc gag tcc aac tcg 192  
 Gly Ala Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser  
 50 55 60  
 gac gcg aac gac aac gat ccg ctg gtg gtc aac acg gat aag ggg cgc 240  
 Asp Ala Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg  
 65 70 75 80  
 atc cgc ggc att acg gtc gat gcg ccc agc ggc aag aag gtg gac gtg 288  
 Ile Arg Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val  
 85 90 95  
 tgg ctc ggc att ccc tac gcc cag ccg ccg gtc ggg ccg tta cgg ttc 336  
 Trp Leu Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe  
 100 105 110  
 cgt cat ccg cgg ccg gcc gaa aag tgg acc ggc gtg ctg aac acg acc 384  
 Arg His Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr  
 115 120 125  
 aca ccg ccc aac agc tgc gtg cag atc gtg gac acc gtg ttc ggc gac 432  
 Thr Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp  
 130 135 140  
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 Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp  
 145 150 155 160  
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 Cys Leu Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala  
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 Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala  
 180 185 190  
 acc ctg gac gtg tac gac cac ccg gcg ctt gcg tcg gag gag aac gtg 624  
 Thr Leu Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val  
 195 200 205  
 atc gtg gtg tcg ctg cag tac cgc gtg gcc agt ctg ggc ttc ctg ttt 672



## 263365us-seq-list-082310 (2).txt

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225				230					235								
ctt	gcg	cta	cgc	tgg	gtg	cgg	gac	aac	att	cac	cgg	ttc	ggt	ggt	gat	768	
Leu	Ala	Leu	Arg	Trp	Val	Arg	Asp	Asn	Ile	His	Arg	Phe	Gly	Gly	Asp	255	
				245					250								
ccg	tcg	cgt	gtg	aca	ctg	ttc	ggc	gag	agt	gcc	ggt	gcc	gtc	tcg	gtg	816	
Pro	Ser	Arg	Val	Thr	Leu	Phe	Gly	Glu	Ser	Ala	Gly	Ala	Val	Ser	Val	260	
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tcg	ctg	cat	ctg	ctg	tcc	gcc	ctg	tcc	cgc	gat	ctg	ttc	cag	cgg	gcc	864	
Ser	Leu	His	Leu	Leu	Ser	Ala	Leu	Ser	Arg	Asp	Leu	Phe	Gln	Arg	Ala	275	
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atc	ctg	cag	agc	ggc	tcg	ccg	acg	gca	ccg	tgg	gca	ttg	gta	tcg	cgc	912	
Ile	Leu	Gln	Ser	Gly	Ser	Pro	Thr	Ala	Pro	Trp	Ala	Leu	Val	Ser	Arg	290	
	290					295					300						
gag	gaa	gcc	acg	cta	aga	gca	ctg	cgg	ttg	gcc	gag	gcg	gtc	ggc	tgc	960	
Glu	Glu	Ala	Thr	Leu	Arg	Ala	Leu	Arg	Leu	Ala	Glu	Ala	Val	Gly	Cys	305	
				310					315						320		
ccg	cac	gaa	ccg	agc	aag	ctg	agc	gat	gcg	gtc	gag	tgt	ctg	cgc	ggc	1008	
Pro	His	Glu	Pro	Ser	Lys	Leu	Ser	Asp	Ala	Val	Glu	Cys	Leu	Arg	Gly	325	
				325					330					335			
aag	gat	ccg	cac	gtg	ctg	gtc	aac	aac	gag	tgg	ggc	acg	ctc	ggc	att	1056	
Lys	Asp	Pro	His	Val	Leu	Val	Asn	Asn	Glu	Trp	Gly	Thr	Leu	Gly	Ile	340	
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tgc	gag	ttc	ccg	ttc	gtg	ccg	gtg	gtc	gac	ggt	gcg	ttc	ctg	gac	gag	1104	
Cys	Glu	Phe	Pro	Phe	Val	Pro	Val	Val	Asp	Gly	Ala	Phe	Leu	Asp	Glu	355	
		355				360						365					
acg	ccg	cag	cgt	tcg	ctc	gcc	agc	ggg	cgc	ttc	aag	aag	acg	gag	atc	1152	
Thr	Pro	Gln	Arg	Ser	Leu	Ala	Ser	Gly	Arg	Phe	Lys	Lys	Thr	Glu	Ile	370	
						375					380						
ctc	acc	ggc	agc	aac	acg	gag	gag	ggc	tac	tac	ttc	atc	atc	tac	tac	1200	
Leu	Thr	Gly	Ser	Asn	Thr	Glu	Glu	Gly	Tyr	Tyr	Phe	Ile	Ile	Tyr	Tyr	385	
				390					395					400			
ctg	acc	gag	ctg	ctg	cgc	aag	gag	gag	ggc	gtg	acc	gtg	acg	cgc	gag	1248	
Leu	Thr	Glu	Leu	Leu	Arg	Lys	Glu	Glu	Gly	Val	Thr	Val	Thr	Arg	Glu	405	
				405					410					415			
gag	ttc	ctg	cag	gcg	gtg	cgc	gag	ctc	aac	ccg	tac	gtg	aac	ggg	gcg	1296	
Glu	Phe	Leu	Gln	Ala	Val	Arg	Glu	Leu	Asn	Pro	Tyr	Val	Asn	Gly	Ala	420	
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gcc	cgg	cag	gcg	atc	gtg	ttc	gag	tac	acc	gac	tgg	acc	gag	ccg	gac	1344	
Ala	Arg	Gln	Ala	Ile	Val	Phe	Glu	Tyr	Thr	Asp	Trp	Thr	Glu	Pro	Asp	435	
			435				440					445					
aac	ccg	aac	agc	aac	cgg	gac	gcg	ctg	gac	aag	atg	gtg	ggc	gac	tat	1392	
Asn	Pro	Asn	Ser	Asn	Arg	Asp	Ala	Leu	Asp	Lys	Met	Val	Gly	Asp	Tyr	450	
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263365us-seq-list-082310 (2).txt

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Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn	
485 490 495	
ccg tgg ccg cgc tgg acg ggc gtg atg cac ggc gac gag atc aac tac	1536
Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr	
500 505 510	
gtg ttc ggc gaa ccg ctc aac ccc acc ctc ggc tac acc gag gac gag	1584
Val Phe Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu	
515 520 525	
aaa gac ttt agc cgg aag atc atg cga tac tgg tct aac ttt gcc aaa	1632
Lys Asp Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys	
530 535 540	
acc ggg aat cca aat ccc aac acg gcc agc agc gaa ttc ccc gag tgg	1680
Thr Gly Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp	
545 550 555 560	
ccc aag cac acc gcc cac gga cgg cac tat ctg gag ctg ggc ctc aac	1728
Pro Lys His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn	
565 570 575	
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Thr Ser Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp	
580 585 590	
aag aag tac ctt ccc cag cta gtt gca gct acc tcg aac cta cca ggg	1824
Lys Lys Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly	
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Pro Ala Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg	
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Phe Ile Gln	

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<212> PRT

<213> Anopheles gambiae strain KISUMU

<400> 5

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20

25

30

Val Arg Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser

35

40

45

263365us-seq-list-082310 (2).txt

Gly Ala Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser  
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Ile Arg Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val  
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Trp Leu Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe  
100 105 110  
Arg His Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr  
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Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp  
145 150 155 160  
Cys Leu Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala  
165 170 175  
Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala  
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195 200 205  
Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe  
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260 265 270  
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Glu Glu Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys  
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325 330 335  
Lys Asp Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile  
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263365us-seq-list-082310 (2).txt

Leu Thr Gly Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr  
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Glu Phe Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala  
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Ala Arg Gln Ala Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp  
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Asn Pro Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr  
450 455 460

His Phe Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu  
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Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn  
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Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr  
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Val Phe Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu  
515 520 525

Lys Asp Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys  
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Thr Gly Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp  
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Pro Lys His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn  
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Thr Ser Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp  
580 585 590

Lys Lys Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly  
595 600 605

Pro Ala Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg  
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Phe Ile Gln

<210> 6

<211> 3297

<212> DNA

<213> Culex pipiens strain S-LAB

<400> 6

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263365us-seq-list-082310 (2).txt

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 <213> Culex pipiens strain S-LAB

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 Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro  
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 210 215 220  
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 225 230 235 240  
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Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Asn Cys Pro His Asp  
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Ala Thr Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Thr Lys Asp Pro  
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Asn Glu Leu Val Asp Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe  
405 410 415

Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln  
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Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Asp Ile Leu Thr Gly  
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Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu  
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Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu  
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Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln  
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Ala Ile Val Phe Glu Tyr Thr Asp Trp Ile Glu Pro Asp Asn Pro Asn  
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Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr  
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Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn  
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Val Phe Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro  
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Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly  
565 570 575

Glu Pro Leu Asn Ser Ala Leu Gly Tyr Gln Asp Asp Glu Lys Asp Phe  
580 585 590

Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn  
595 600 605

Pro Asn Pro Ser Thr Pro Ser Val Asp Leu Pro Glu Trp Pro Lys His  
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Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Thr Phe  
625 630 635 640

Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys Tyr  
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Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Gln Val Thr Pro Ala  
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 Tyr Ala Glu Glu Gly Asn Asn Val Phe Met Tyr Leu Tyr Thr His Arg  
 35 40 45  
 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 35 40 45  
 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 85 90

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<400> 10



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 35 40 45  
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 Tyr Ala Glu Glu Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg  
 35 40 45  
 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 85 90

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<400> 12  
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 35 40 45  
 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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263365us-seq-list-082310 (2).txt

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 Tyr Ala Glu Glu Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg  
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 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 Tyr Ala Glu Glu Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg  
 35 40 45  
 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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263365us-seq-list-082310 (2).txt

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 35 40 45  
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<400> 16

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<213> Anopheles pseudopunctipennis

<400> 17

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263365us-seq-list-082310 (2).txt

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 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 Tyr Ala Glu Glu Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg  
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 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 Glu Ile Asn Tyr Val Phe Gly Glu Pro Leu Asn Pro Ser Leu Gly Tyr  
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 85 90

263365us-seq-list-082310 (2).txt

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 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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 Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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<400> 22  
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263365us-seq-list-082310 (2).txt

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<213> Aedes aegypti

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<210> 28  
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<212> DNA

<213> *Anopheles sundaicus*

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<212> DNA

<213> *Anopheles minimus*

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<210> 31

<211> 273

<212> DNA

<213> *Anopheles moucheti*

<400> 31

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accgaagacg agaaagactt tagccggaag atc 273
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<210> 32

<211> 273

<212> DNA

<213> *Anopheles arabiensis*

<400> 32

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accgaggacg agaaagactt tagccggaag atc 273
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<210> 33

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<213> *Anopheles funestus*

<400> 33

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accgaggacg agaaagactt tagccggaag atc 273
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<210> 36  
<211> 273  
<212> DNA  
<213> Anopheles stephensi

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<210> 37  
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<213> Anopheles albimanus

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<213> Anopheles nili

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&lt;211&gt; 585

&lt;212&gt; PRT

&lt;213&gt; Ciona intestinalis

&lt;400&gt; 51

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Arg	His	Gln	Arg	Ile	Ala	Ala	Phe	Leu	Gly	Ile	Pro	Phe	Ala	Ser	Pro
		20						25					30		

Pro	Val	Gly	Glu	Leu	Arg	Phe	Ala	Ala	Pro	Gln	Pro	Pro	Leu	Ser	Trp
		35					40					45			

Glu	Pro	Asp	Val	Arg	Gln	Thr	Thr	Glu	Phe	Gly	Asn	Ser	Cys	Val	Gln
	50					55					60				

Ile	Asp	Asp	Glu	Val	Phe	Gly	Asn	Phe	Arg	Glu	Met	Trp	Asn	Ala	Pro
65					70				75						80

Asn	Leu	Lys	Ser	Glu	Asp	Cys	Leu	Tyr	Leu	Asn	Ile	Trp	Thr	Pro	Arg
				85					90					95	

Ile	Pro	Thr	Ser	Thr	Arg	Ser	Gln	Pro	Leu	Ala	Val	Met	Val	Trp	Ile
			100					105					110		

Tyr	Gly	Gly	Ser	Phe	Tyr	Ser	Gly	Thr	Thr	Ala	Leu	Ala	Leu	Tyr	Asp
		115					120					125			

Gly	Arg	Tyr	Leu	Ala	Ala	Gln	Gly	Gly	Val	Val	Val	Val	Ser	Ile	Asn
	130					135					140				

Tyr	Arg	Leu	Gly	Pro	Leu	Gly	Phe	Leu	Ala	Pro	Leu	Ala	Gly	Thr	Pro
145					150					155					160

Gly	Asn	Ala	Gly	Leu	Leu	Asp	Gln	Gln	Leu	Ala	Leu	Lys	Trp	Val	Arg
			165					170						175	

Asp	Asn	Ile	Arg	Ala	Phe	Gly	Gly	Asn	Pro	Asp	Asn	Val	Thr	Leu	Met
			180					185					190		

Gly	Glu	Ser	Ala	Gly	Ala	Ala	Ser	Ile	Gly	Leu	His	Thr	Val	Ala	Pro

195

200

205

Ser Ser Arg Gly Leu Phe Asn Arg Val Ile Phe Gln Ser Gly Asn Gln  
 210 215 220  
 Met Thr Pro Trp Ser Thr Ile Ser Leu Pro Thr Ser Leu Asn Arg Thr  
 225 230 235 240  
 Arg Ile Leu Ala Ala Asn Leu Arg Cys Pro Asn Pro Arg Thr Ser Ser  
 245 250 255  
 Glu Leu Asp Val Leu Thr Cys Leu Arg Ser His Ser Ala Val Asp Val  
 260 265 270  
 Phe Ser Asn Ser Trp Ile Thr Gln Glu Ile Phe Asp Phe Pro Phe Val  
 275 280 285  
 Pro Val His Gly Thr Ser Phe Leu Pro Glu His Pro His Glu Val Thr  
 290 295 300  
 Arg Lys Gly Glu Gln Ala Asp Val Asp Val Met Ala Gly His Asn Thr  
 305 310 315 320  
 Asn Glu Gly Ser Tyr Phe Thr Leu Tyr Thr Val Pro Gly Phe Asn Ile  
 325 330 335  
 Ser Ser Gln Ser Ile Leu Ser Lys Lys Glu Tyr Ile Asp Gly Ile Ala  
 340 345 350  
 Leu Ser Gly Ile Lys Thr Asn Glu Leu Gly Arg Ser Gly Ala Ala Phe  
 355 360 365  
 Met Tyr Ala Asp Trp Glu Asn Pro Asp Asn Val Leu Gln Tyr Arg Asp  
 370 375 380  
 Gly Val Asn Glu Ile Val Gly Asp Phe His Val Val Cys Pro Thr Val  
 385 390 395 400  
 Leu Leu Thr Lys Arg His Ser Arg Thr Phe Ser Asn Asn Asn Val Tyr  
 405 410 415  
 Leu Tyr His Leu Ser Tyr Arg Leu Ser Asn Asn Pro Trp Pro Ala Trp  
 420 425 430  
 Met Gly Val Met His Gly Tyr Glu Ile Glu Leu Met Phe Gly Thr Pro  
 435 440 445  
 Trp Phe Gly Thr Ser Gln Phe Thr Ser Gly Tyr Asn Asp Val Asp Arg  
 450 455 460  
 Ser Val Ser Arg Arg Met Val His Tyr Trp Thr Asn Phe Ala Lys Phe  
 465 470 475 480  
 Gly Asn Pro Asn Gly Leu Arg Ser Ala Asn Glu Leu Asp Leu Arg Ser  
 485 490 495  
 Thr Asp Trp Pro Arg Phe Asp Asp Val Arg Gln Arg Tyr Leu Glu Ile  
 500 505 510  
 Gly Ile Asp Asp Asp Val Met Gly Pro Phe Pro Asn Ser Phe Arg Cys  
 515 520 525  
 Ala Phe Trp Glu Arg Tyr Leu Pro Ser Leu Lys Leu Ala Ser Ser Ala

530

Asp Met Asp Glu Val Glu Thr Lys Trp Lys Ile Glu Phe Asn Arg Trp  
545 550 555 560  
Thr Glu Ser Met Asp Leu Trp Asp Arg Ser Phe Lys Ala Tyr Ser Lys  
565 570 575  
Asp Gly Lys Gln Ser Ser Cys Pro Asn  
580 585

<210> 52  
<211> 583  
<212> PRT  
<213> Ciona savignyi

<400> 52  
Gly Ser Ile Gln Gly Lys His Val Glu Val Thr Ala His Arg Gln Arg  
1 5 10 15  
Tyr Gly Arg Val Ala Thr Phe Gln Gly Ile Pro Phe Ala Gln Pro Pro  
20 25 30  
Val Gly Glu Leu Arg Phe Ala Ala Pro Gln Pro Pro Leu Ser Trp Glu  
35 40 45  
Pro Asp Val Lys Met Thr Ser Glu Phe Gly Asn Ser Cys Ile Gln Glu  
50 55 60  
Asp Asp Leu Val Phe Gly Asn Phe Thr Gly Gly Ser Gln Met Trp Asn  
65 70 75 80  
Ser Pro Asn Ala Lys Ser Glu Asp Cys Leu Tyr Leu Asn Val Trp Thr  
85 90 95  
Pro Val Arg Ser Arg His Ala Glu Pro Leu Ala Val Leu Val Trp Ile  
100 105 110  
Tyr Gly Gly Ser Tyr Tyr Ser Gly Thr Ser Ser Leu Ala Leu Tyr Asp  
115 120 125  
Gly Arg Tyr Leu Ala Ala Thr Gly Gly Val Val Val Val Ser Leu Asn  
130 135 140  
Tyr Arg Leu Gly Pro Ile Gly Phe Leu Ala Pro Leu Ala Asp Glu Thr  
145 150 155 160  
Pro Gly Asn Val Gly Leu Leu Asp Gln Gln Leu Ala Leu Lys Trp Val  
165 170 175  
Arg Asp Asn Ile Arg Glu Phe Gly Gly Asn Pro Asn Asn Val Thr Val  
180 185 190  
Met Gly Glu Ser Ala Gly Ala Ala Ser Ile Gly Leu His Thr Ile Ala  
195 200 205  
Pro Ser Ser Arg Gly Leu Phe Ser Arg Val Ile Leu Gln Ser Gly Asn  
210 215 220  
Gln Met Thr Pro Trp Ser Thr Ile Ser Leu Glu Thr Ser Leu Asn Arg  
225 230 235 240

263365us-seq-list-082310 (2).txt

Thr Arg Thr Leu Ala Ala Asn Leu Asn Cys Pro Lys Pro Arg Thr Ala  
245 250 255  
Ser Glu Ala Asp Ile Leu Ala Cys Leu Arg Thr His Thr Ala Asn Glu  
260 265 270  
Val Phe Ala Gly Ser Trp Ile Thr Lys Glu Ile Phe Asp Phe Pro Phe  
275 280 285  
Val Pro Val His Gly Thr Thr Phe Leu Pro Glu His Pro His Glu Val  
290 295 300  
Thr Arg Arg Gly Asp Gln Ala Glu Val Asp Val Leu Ala Gly Tyr Asn  
305 310 315 320  
Thr Asn Glu Gly Ser Tyr Phe Thr Ile Tyr Thr Val Pro Gly Tyr Asn  
325 330 335  
Ile Thr Thr Asn Ser Val Leu Asn Arg Arg Gln Tyr Leu Ala Gly Val  
340 345 350  
Asp Leu Ser Gly Leu Lys Thr Asn Thr Met Gly Arg Ser Ala Ala Ala  
355 360 365  
Phe Met Tyr Thr Asp Trp Glu Asn Leu Asp Asn Glu Leu Gln Tyr Arg  
370 375 380  
Asp Ala Val Asn Glu Ile Val Gly Asp Phe His Val Val Cys Pro Thr  
385 390 395 400  
Val Leu Val Ser Lys Arg His Ser Asn Ser Phe Pro Asn Arg Asn Val  
405 410 415  
Phe Leu Tyr His Leu Ser Tyr Arg Val Ser Thr Asn Pro Trp Pro Ile  
420 425 430  
Trp Met Gly Val Met His Gly Tyr Glu Ile Glu Leu Met Phe Gly Thr  
435 440 445  
Pro Trp Phe Gly Asn Ser Lys Phe Thr Arg Gly Tyr Ser Asp Leu Asp  
450 455 460  
Arg Ser Val Ser Arg Arg Met Val Arg Tyr Trp Thr Asn Phe Ala Lys  
465 470 475 480  
Phe Gly Asn Pro Asn Gly Leu Arg Asn Gln Asn Gln Glu Leu Val Ser  
485 490 495  
Asp Trp Pro Arg Phe Asn Asp Val Thr Gln Arg Tyr Leu Glu Ile Ala  
500 505 510  
Asp Asp Asp Val Thr Met Ala Pro Phe Pro Asp Ser Phe Arg Cys Ala  
515 520 525  
Phe Trp Gln Lys Tyr Leu Pro Ser Leu Gln Leu Ala Ser Ser Asn Met  
530 535 540  
Asp Glu Val Glu Thr Lys Trp Lys Ile Glu Phe His Arg Trp Ser Glu  
545 550 555 560  
Ser Met Asp Leu Trp Asp Arg Ser Phe Lys Ala Tyr Ser Ser Asp Asp  
565 570 575



Lys Gln Asn Ser Cys Pro Asn  
580

<210> 53

<211> 645

<212> PRT

<213> Anopheles gambiae

<400> 53

Met Ala Ser Ala Tyr Tyr His Gln Ser Ala Val Gly Val Gly Asn Val  
1 5 10 15  
Leu Val Leu Leu Leu Gly Ala Thr Val Ile Cys Pro Ala Tyr Ala Ile  
20 25 30  
Ile Asp Arg Leu Val Val Gln Thr Ser Ser Gly Pro Ile Arg Gly Arg  
35 40 45  
Ser Thr Met Val Gln Gly Arg Glu Val His Val Phe Asn Gly Val Pro  
50 55 60  
Phe Ala Lys Pro Pro Val Asp Ser Leu Arg Phe Lys Lys Pro Val Pro  
65 70 75 80  
Ala Glu Pro Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro Pro Ser  
85 90 95  
Cys Ile Gln Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ala Gly Glu Glu  
100 105 110  
Met Trp Asn Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Tyr Leu Asn  
115 120 125  
Ile Trp Val Pro Thr Lys Thr Arg Leu Arg His Gly Arg Gly Leu Asn  
130 135 140  
Phe Gly Ser Asn Asp Tyr Phe Gln Asp Asp Asp Phe Gln Arg Gln  
145 150 155 160  
His Gln Ser Lys Gly Gly Leu Ala Met Leu Val Trp Ile Tyr Gly Gly  
165 170 175  
Gly Phe Met Ser Gly Thr Ser Thr Leu Asp Ile Tyr Asn Ala Glu Ile  
180 185 190  
Leu Ala Ala Val Gly Asn Val Ile Val Ala Ser Met Gln Tyr Arg Val  
195 200 205  
Gly Ala Phe Gly Phe Leu Tyr Leu Ala Pro Tyr Ile Asn Gly Tyr Glu  
210 215 220  
Glu Asp Ala Pro Gly Asn Met Gly Met Trp Asp Gln Ala Leu Ala Ile  
225 230 235 240  
Arg Trp Leu Lys Glu Asn Ala Lys Ala Phe Gly Gly Asp Pro Asp Leu  
245 250 255  
Ile Thr Leu Phe Gly Glu Ser Ala Gly Gly Ser Ser Val Ser Leu His  
260 265 270

Leu Leu Ser Pro Val Thr Arg Gly Leu Ser Lys Arg Gly Ile Leu Gln  
 275 280 285  
 Ser Gly Thr Leu Asn Ala Pro Trp Ser His Met Thr Ala Glu Lys Ala  
 290 295 300  
 Leu Gln Ile Ala Glu Gly Leu Ile Asp Asp Cys Asn Cys Asn Leu Thr  
 305 310 315 320  
 Met Leu Lys Glu Ser Pro Ser Thr Val Met Gln Cys Met Arg Asn Val  
 325 330 335  
 Asp Ala Lys Thr Ile Ser Val Gln Gln Trp Asn Ser Tyr Ser Gly Ile  
 340 345 350  
 Leu Gly Phe Pro Ser Ala Pro Thr Ile Asp Gly Val Phe Met Thr Ala  
 355 360 365  
 Asp Pro Met Thr Met Leu Arg Glu Ala Asn Leu Glu Gly Ile Asp Ile  
 370 375 380  
 Leu Val Gly Ser Asn Arg Asp Glu Gly Thr Tyr Phe Leu Leu Tyr Asp  
 385 390 395 400  
 Phe Ile Asp Tyr Phe Glu Lys Asp Ala Ala Thr Ser Leu Pro Arg Asp  
 405 410 415  
 Lys Phe Leu Glu Ile Met Asn Thr Ile Phe Asn Lys Ala Ser Glu Pro  
 420 425 430  
 Glu Arg Glu Ala Ile Ile Phe Gln Tyr Thr Gly Trp Glu Ser Gly Asn  
 435 440 445  
 Asp Gly Tyr Gln Asn Gln His Gln Val Gly Arg Ala Val Gly Asp His  
 450 455 460  
 Phe Phe Ile Cys Pro Thr Asn Glu Phe Ala Leu Gly Leu Thr Glu Arg  
 465 470 475 480  
 Gly Ala Ser Val His Tyr Tyr Tyr Phe Thr His Arg Thr Ser Thr Ser  
 485 490 495  
 Leu Trp Gly Glu Trp Met Gly Val Leu His Gly Asp Glu Val Glu Tyr  
 500 505 510  
 Ile Phe Gly Gln Pro Met Asn Ala Ser Leu Gln Tyr Arg Gln Arg Glu  
 515 520 525  
 Arg Asp Leu Ser Arg Arg Met Val Leu Ser Val Ser Glu Phe Ala Arg  
 530 535 540  
 Thr Gly Asn Pro Ala Leu Glu Gly Glu His Trp Pro Leu Tyr Thr Arg  
 545 550 555 560  
 Glu Asn Pro Ile Tyr Phe Ile Phe Asn Ala Glu Gly Glu Asp Asp Leu  
 565 570 575  
 Arg Gly Glu Lys Tyr Gly Arg Gly Pro Met Ala Thr Ser Cys Ala Phe  
 580 585 590  
 Trp Asn Asp Phe Leu Pro Arg Leu Arg Ala Trp Ser Val Pro Leu Lys  
 595 600 605

Asp Pro Cys Lys Leu Asp Asp His Thr Ser Ile Ala Ser Thr Ala Arg  
610 615 620

Ala Ala Pro Thr Val Ala Leu Leu Ile Ala Leu Ser Leu Ala Val Ala  
625 630 635 640

Arg Leu Val Ala Ala  
645

<210> 54  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic DNA

<400> 54  
ccacacgccca gaagaaaaga

20

<210> 55  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic DNA

<400> 55  
aaaaacggga acgggaaag

19

<210> 56  
<211> 2109  
<212> DNA  
<213> Culex pipiens strain SR

<220>  
<221> cds  
<222> (1)..(2106)

<400> 56  
atg gag atc cga ggc cta ata acc cga tta ctg ggt cca tgt cac ctg 48  
Met Glu Ile Arg Gly Leu Ile Thr Arg Leu Leu Gly Pro Cys His Leu  
1 5 10 15

cga cat ctg ata ctg tgc agt ttg ggg ctg tac tcc atc ctc gtg cag 96  
Arg His Leu Ile Leu Cys Ser Leu Gly Leu Tyr Ser Ile Leu Val Gln  
20 25 30

tcg gtc cat tgc cgg cat cat gac atc ggt agt tcg gtg gca cac cag 144  
Ser Val His Cys Arg His His Asp Ile Gly Ser Ser Val Ala His Gln  
35 40 45

cta gga tcg aaa tac tca caa tca tcc tcg tta tcg tca tcc tcg caa 192  
Leu Gly Ser Lys Tyr Ser Gln Ser Ser Ser Leu Ser Ser Ser Ser Gln  
50 55 60

tcg tca tcg tcg tta gct gaa gag gcc acg ctg aat aaa gat tca gat 240  
Ser Ser Ser Ser Leu Ala Glu Glu Ala Thr Leu Asn Lys Asp Ser Asp  
65 70 75 80

## 263365us-seq-list-082310 (2).txt

gca ttt ttt aca cca tat ata ggt cac gga gat tct gtt cga att gta Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Asp Ser Val Arg Ile Val 85 90 95	288
gat gcc gaa tta ggt aca tta gag cgc gag cat atc cat agc act acg Asp Ala Glu Leu Gly Thr Leu Glu Arg Glu His Ile His Ser Thr Thr 100 105 110	336
acc cgg cgg cgt ggc ctg acc cgg agg gag tcc agc tcc gat gcc acc Thr Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Ser Ser Asp Ala Thr 115 120 125	384
gac tcg gac cca ctg gta ata acg acg gac aag ggc aaa atc cgt gga Asp Ser Asp Pro Leu Val Ile Thr Thr Asp Lys Gly Lys Ile Arg Gly 130 135 140	432
acg aca ctg gaa gcg cca agt gga aag aag gtg gac gca tgg atg ggc Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly 145 150 155 160	480
att ccg tac gcg cag ccc ccg ctg ggt ccg ctc cgg ttt cga cat ccg Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro 165 170 175	528
cga ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa cca ccc Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro 180 185 190	576
aac tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggc Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly 195 200 205	624
gcg acc atg tgg aac ccg aac aca ccc ctc tcg gag gac tgt ctg tac Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr 210 215 220	672
atc aac gtg gtc gtg cca agg ccg agg ccc aag aat gcc gct gtc atg Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met 225 230 235 240	720
ctg tgg atc ttt ggg ggt agc ttc tac tcc ggg act gcc acg ttg gac Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu Asp 245 250 255	768
gtg tac gat cat cgg acg ctg gcc tcg gag gag aac gtg atc gtg gtt Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val 260 265 270	816
tcg ctg cag tac cgt gtc gca agt ctt ggt ttt ctc ttc ctg ggc act Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly Thr 275 280 285	864
ccg gag gca cct ggt aac gcg ggg ctg ttt gat caa aac ctg gca ctg Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala Leu 290 295 300	912
aga tgg gtc cgc gac aac atc cac cgg ttc ggc ggt gac ccc tcg ccg Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser Arg 305 310 315 320	960
gtc aca ctg ttc ggc gag agc gcc gga gcg gtc tcg gtt tcg ctg cac Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu His 36	1008

## 263365us-seq-list-082310 (2).txt

325	330	335	
ctg ctg tcg gcg ctc tcg cgg gac ctg ttc cag cgg gcc atc ctc cag Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu Gln 340 345 350	1056		
agt ggc tcc ccg acg gcc cca tgg gcg ctg gtt tcg cgc gaa gaa gct Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu Ala 355 360 365	1104		
acg ctt aga gct ctt cgt ctg gcc gag gcc gtc aac tgt ccg cac gat Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Asn Cys Pro His Asp 370 375 380	1152		
gcg acc aag ctg agc gat gcc gtc gaa tgt ctg cga acc aag gat ccg Ala Thr Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Thr Lys Asp Pro 385 390 395 400	1200		
aac gag ctg gtc gac aat gag tgg ggc acg ctg ggg atc tgc gag ttt Asn Glu Leu Val Asp Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe 405 410 415	1248		
ccg ttc gtt ccg gtt gtg gac ggt gcc ttc ctc gat gag aca ccg cag Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln 420 425 430	1296		
cgt tcg ttg gcc agc ggt cgc ttc aag aaa acg gac atc ctg acc ggc Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Asp Ile Leu Thr Gly 435 440 445	1344		
agc aac acc gag gag ggt tac tac ttt atc att tac tat cta acc gaa Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu 450 455 460	1392		
ctg ctc agg aaa gag gaa ggg gtc acg gta aca cgc gag gag ttc cta Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu 465 470 475 480	1440		
cag gcc gtc cgg gag ttg aat ccg tac gtg aac ggt gcc gcc cgg cag Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln 485 490 495	1488		
gcc atc gtg ttc gag tac acg gac tgg atc gaa ccg gac aac ccg aac Ala Ile Val Phe Glu Tyr Thr Asp Trp Ile Glu Pro Asp Asn Pro Asn 500 505 510	1536		
agc aac cgt gac gcg ctc gac aag atg gtc ggg gat tat cac ttc acc Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr 515 520 525	1584		
tgc aac gtg aac gag ttc gcc cag cgg tac gcc gag gag ggc aac aat Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn 530 535 540	1632		
gtg ttc atg tac ctg tac acg cac aga agc aaa gga aat ccc tgg ccg Val Phe Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro 545 550 555 560	1680		
agg tgg act ggc gtg atg cac ggc gac gag atc aac tac gtg ttt ggc Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly 565 570 575	1728		
gaa ccg ctg aac tcg gcc ctc ggc tac cag gac gac gag aag gac ttt	1776		

## 263365us-seq-list-082310 (2).txt

Glu Pro Leu Asn Ser Ala Leu Gly Tyr Gln Asp Asp Glu Lys Asp Phe  
580 585 590

agc cgg aaa att atg cga tac tgg tcc aac ttt gcc aag act ggc aat 1824  
Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn  
595 600 605

cca aac ccg agt acg ccg agc gtg gac ctg ccc gaa tgg ccc aag cac 1872  
Pro Asn Pro Ser Thr Pro Ser Val Asp Leu Pro Glu Trp Pro Lys His  
610 615 620

acc gcc cac gga cga cac tat ctg gag ctg gga ctg aac acg acc ttc 1920  
Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Thr Phe  
625 630 635

gtg gga cgg ggc cca cga ttg cgg cag tgc gct ttc tgg aag aaa tat 1968  
Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys Tyr  
645 650 655

ttg ccg caa cta gta gca gct acc tct aac ctc caa gta act ccc gcg 2016  
Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Gln Val Thr Pro Ala  
660 665 670

cct agc gta cct tgc gaa agc agc tca aca tct tat cga tcc act cta 2064  
Pro Ser Val Pro Cys Glu Ser Ser Ser Thr Ser Tyr Arg Ser Thr Leu  
675 680 685

ctt cta ata gtc aca cta ctt tta gta acg cgg ttc aag att taa 2109  
Leu Leu Ile Val Thr Leu Leu Leu Val Thr Arg Phe Lys Ile  
690 695 700

&lt;210&gt; 57

&lt;211&gt; 702

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens strain SR

&lt;400&gt; 57

Met Glu Ile Arg Gly Leu Ile Thr Arg Leu Leu Gly Pro Cys His Leu  
1 5 10 15

Arg His Leu Ile Leu Cys Ser Leu Gly Leu Tyr Ser Ile Leu Val Gln  
20 25 30

Ser Val His Cys Arg His His Asp Ile Gly Ser Ser Val Ala His Gln  
35 40 45

Leu Gly Ser Lys Tyr Ser Gln Ser Ser Ser Leu Ser Ser Ser Gln  
50 55 60

Ser Ser Ser Ser Leu Ala Glu Glu Ala Thr Leu Asn Lys Asp Ser Asp  
65 70 75 80

Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Asp Ser Val Arg Ile Val  
85 90 95

Asp Ala Glu Leu Gly Thr Leu Glu Arg Glu His Ile His Ser Thr Thr  
100 105 110

Thr Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Ser Ser Asp Ala Thr  
115 120 125

Asp Ser Asp Pro Leu Val Ile Thr Thr Asp Lys Gly Lys Ile Arg Gly

130

135

140

Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly  
 145 150 155 160  
 Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro  
 165 170 175  
 Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro  
 180 185 190  
 Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly  
 195 200 205  
 Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr  
 210 215 220  
 Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met  
 225 230 235 240  
 Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu Asp  
 245 250 255  
 Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val  
 260 265 270  
 Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly Thr  
 275 280 285  
 Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala Leu  
 290 295 300  
 Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser Arg  
 305 310 315 320  
 Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu His  
 325 330 335  
 Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu Gln  
 340 345 350  
 Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu Ala  
 355 360 365  
 Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Asn Cys Pro His Asp  
 370 375 380  
 Ala Thr Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Thr Lys Asp Pro  
 385 390 395 400  
 Asn Glu Leu Val Asp Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe  
 405 410 415  
 Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln  
 420 425 430  
 Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Asp Ile Leu Thr Gly  
 435 440 445  
 Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu  
 450 455 460  
 Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu

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465              470              475              480
Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln
              485              490              495
Ala Ile Val Phe Glu Tyr Thr Asp Trp Ile Glu Pro Asp Asn Pro Asn
              500              505              510
Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr
              515              520              525
Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn
              530              535              540
Val Phe Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro
              545              550              555
Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly
              565              570              575
Glu Pro Leu Asn Ser Ala Leu Gly Tyr Gln Asp Asp Glu Lys Asp Phe
              580              585              590
Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn
              595              600              605
Pro Asn Pro Ser Thr Pro Ser Val Asp Leu Pro Glu Trp Pro Lys His
              610              615              620
Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Thr Phe
              625              630              635
Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys Tyr
              645              650              655
Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Gln Val Thr Pro Ala
              660              665              670
Pro Ser Val Pro Cys Glu Ser Ser Ser Thr Ser Tyr Arg Ser Thr Leu
              675              680              685
Leu Leu Ile Val Thr Leu Leu Leu Val Thr Arg Phe Lys Ile
              690              695              700

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<210> 58
<211> 18
<212> DNA
<213> Artificial Sequence

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<220>
<223> synthetic DNA

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<400> 58
cgactcggac ccactggt

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18

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<210> 59
<211> 21
<212> DNA
<213> Artificial Sequence

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&lt;220&gt;

&lt;223&gt; Synthetic DNA

&lt;400&gt; 59

gttctgatca aacagccccg c

21

&lt;210&gt; 60

&lt;211&gt; 459

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens pipiens strain Espro (R)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (3)..(458)

&lt;400&gt; 60

ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47  
 Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
 1 5 10 15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95  
 Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
 20 25 30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143  
 Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
 35 40 45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191  
 Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
 50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239  
 Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
 65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287  
 Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
 80 85 90 95

aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt agc ttc tac tcc 335  
 Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser  
 100 105 110

ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg gag 383  
 Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
 115 120 125

gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431  
 Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

ttt ctc ttc ctg ggc aca ccg gag gca c 459  
 Phe Leu Phe Leu Gly Thr Pro Glu Ala  
 145 150

&lt;210&gt; 61

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain ProR(S)

&lt;220&gt;

263365us-seq-list-082310 (2).txt

<221> CDS

<222> (3)..(458)

<400> 61

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ac aag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag      47
  Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys
    1             5             10             15

aag gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt      95
  Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly
                20             25             30

ccg ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg     143
  Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val
                35             40             45

ctg aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc     191
  Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr
                50             55             60

gtg ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg     239
  Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro
                65             70             75

ctc tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca ccg ccc agg     287
  Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg
                80             85             90

ccc aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt gcc ttc tac     335
  Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr
                100            105            110

tcc ggg act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg     383
  Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser
                115            120            125

gag gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt     431
  Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu
                130            135            140

ggg ttt ctc ttc ctg ggc aca ccg gag gca                               461
  Gly Phe Leu Phe Leu Gly Thr Pro Glu
                145            150

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<210> 62

<211> 448

<212> DNA

<213> Culex pipiens pipiens strain S-LAB (S)

<220>

<221> CDS

<222> (3)..(446)

<400> 62

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ag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag      47
  Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
    1             5             10             15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg      95
  Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20             25             30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg     143

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263365us-seq-list-082310 (2).txt

Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
35 40 45

aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191  
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc 239  
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca ccg ccc agg ccc 287  
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
80 85 90 95

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc 335  
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
100 105 110

ggg act gcc acg ctg gac gtg tac gac cac ccg acg ctg gcc tcg gag 383  
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
115 120 125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggg 431  
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
130 135 140

ttt ctc ttc ctg gcc ac 448  
Phe Leu Phe Leu Gly  
145

<210> 63

<211> 459

<212> DNA

<213> Culex pipiens pipiens strain Padova (R)

<220>

<221> CDS

<222> (3)..(458)

<400> 63

ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47  
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
1 5 10 15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95  
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
20 25 30

ctc ccg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143  
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
35 40 45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191  
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239  
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287  
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
Page 43

## 263365us-seq-list-082310 (2).txt

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80          85          90          95
aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt agc ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser
100          105          110
ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
115          120          125
gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
130          135          140
ttt ctc ttc ctg ggc aca ccg gag gca c
Phe Leu Phe Leu Gly Thr Pro Glu Ala
145          150
<210> 64
<211> 463
<212> DNA
<213> Culex pipiens pipiens strain Praias (R)
<220>
<221> CDS
<222> (1)..(462)
<400> 64
gac aag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag 48
Asp Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys
1          5          10          15
aag gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt 96
Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly
20          25          30
ccg ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg 144
Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val
35          40          45
ctg aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc 192
Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr
50          55          60
gtg ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc 240
Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro
65          70          75          80
ctc tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg 288
Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg
85          90          95
ccc aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt agc ttc tac 336
Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr
100          105          110
tcc ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg 384
Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser
115          120          125
gag gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt 432

```

263365us-seq-list-082310 (2).txt

Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu  
130 135 140

ggt ttt ctc ttc ctg ggc aca ccg gag gca c 463  
Gly Phe Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 65

<211> 463

<212> DNA

<213> Culex pipiens quinquefasciatus strain Supercar (R)

<220>

<221> CDS

<222> (1) .. (462)

<400> 65

gac aag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag 48  
Asp Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys  
1 5 10 15

aag gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt 96  
Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly  
20 25 30

ccg ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg 144  
Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val  
35 40 45

ctg aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc 192  
Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr  
50 55 60

gtg ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc 240  
Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro  
65 70 75 80

ctc tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg 288  
Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg  
85 90 95

ccc aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt agc ttc tac 336  
Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr  
100 105 110

tcc ggg act gcc acg ttg gac gtg tac gat cat ccg acg ctg gcc tcg 384  
Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser  
115 120 125

gag gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt 432  
Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu  
130 135 140

ggt ttt ctc ttc ctg ggc aca ccg gag gca c 463  
Gly Phe Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 66

<211> 448

<212> DNA

<213> Culex pipiens pipiens strain Bruges A (S)

<220>

263365us-seq-list-082310 (2).txt

<221> CDS

<222> (3)..(446)

<400> 66

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ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag      47
  Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
    1             5             10
gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg      95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20             25             30
ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg     143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
                35             40             45
aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg     191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
                50             55             60
ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc     239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
                65             70             75
tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc     287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
    80             85             90             95
aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt ggc ttc tac tcc     335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
                100             105             110
ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg gag     383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
                115             120             125
gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt     431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
                130             135             140
ttt ctc ttc ctg ggc ac
Phe Leu Phe Leu Gly
                145

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<210> 67

<211> 457

<212> DNA

<213> Culex pipiens quinquefasciatus strain BO (R)

<220>

<221> CDS

<222> (1)..(456)

<400> 67

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ggc aaa atc cgt gga acg aca ctg gaa gcg cct agc gga aag aag gtg      48
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val
    1             5             10             15
gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg ctc     96
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu
                20             25             30

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## 263365us-seq-list-082310 (2).txt

cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg aac	144
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn	
35 40 45	
gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg ttc	192
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe	
50 55 60	
ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc tcg	240
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser	
65 70 75 80	
gag gac tgt ctg tac atc aac gtg gtc gtg cca ccg ccc agg ccc aag	288
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys	
85 90 95	
aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt agc ttc tac tcc ggg	336
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly	
100 105 110	
act gcc acg ctg gac gtg tac gac cac ccg acg ctg gcc tcg gag gag	384
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu	
115 120 125	
aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt ttt	432
Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe	
130 135 140	
ctc ttc ctg ggc aca ccg gag gca c	457
Leu Phe Leu Gly Thr Pro Glu Ala	
145 150	

&lt;210&gt; 68

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain DJI (R)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(444)

&lt;400&gt; 68

ggc aaa atc cgt gga acg aca ctg gaa gcg cct agc gga aag aag gtg	48
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val	
1 5 10 15	
gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg ctc	96
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu	
20 25 30	
cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg aac	144
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn	
35 40 45	
gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg ttc	192
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe	
50 55 60	
ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc tcg	240
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser	
65 70 75 80	

## 263365us-seq-list-082310 (2).txt

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gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc aag 288
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys
85 90 95

aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt agc ttc tac tcc ggg 336
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly
100 105 110

act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag gag 384
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu
115 120 125

aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt ttt 432
Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe
130 135 140

ctc ttc ctg ggc aca 447
Leu Phe Leu Gly
145

<210> 69
<211> 457
<212> DNA
<213> Culex pipiens quinquefasciatus strain Harare (R)

<220>
<221> CDS
<222> (1)..(456)

<400> 69
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Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val
1 5 10 15

gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg ctc 96
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu
20 25 30

cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg aac 144
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn
35 40 45

gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg ttc 192
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe
50 55 60

ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc tcg 240
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser
65 70 75 80

gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc aag 288
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys
85 90 95

aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt agc ttc tac tcc ggg 336
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly
100 105 110

act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag gag 384
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu
115 120 125

aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt ttt 432

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263365us-seq-list-082310 (2).txt

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140

ctc ttc ctg ggc aca ccg gag gca c  
Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

457

<210> 70

<211> 458

<212> DNA

<213> Culex pipiens quinquefasciatus strain Martinique (R)

<220>

<221> CDS

<222> (1)..(456)

<400> 70

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1 5 10 15

gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg ctc 96  
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
20 25 30

cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg aac 144  
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
35 40 45

gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg ttc 192  
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
50 55 60

ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc tcg 240  
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
65 70 75 80

gag gac tgt ctg tac atc aac gtg gtc gtg cca ccg ccc agg ccc aag 288  
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
85 90 95

aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt agc ttc tac tcc ggg 336  
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly  
100 105 110

act gcc acg ctg gac gtg tac gac cac ccg acg ctg gcc tcg gag gag 384  
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
115 120 125

aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt ttt 432  
Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140

ctc ttc ctg ggc aca ccg gag gca cc 458  
Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 71

<211> 447

<212> DNA

<213> Culex pipiens pipiens strain Barriol (R)

<220>

263365us-seq-list-082310 (2).txt

<221> CDS

<222> (3)..(446)

<400> 71

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    1           5           10           15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20           25           30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
                35           40           45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
                50           55           60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
                65           70           75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
    80           85           90           95

aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt agc ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser
                100           105           110

ggg act gcc acg ttg gac gtg tac gat cat ccg acg ctg gcc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
                115           120           125

gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
                130           135           140

ttt ctc ttc ctg ggc a 447
Phe Leu Phe Leu Gly
    145

```

<210> 72

<211> 447

<212> DNA

<213> Culex pipiens pipiens strain Bleuete (S)

<220>

<221> CDS

<222> (3)..(446)

<400> 72

```

ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47
  Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
    1           5           10           15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20           25           30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143

```

## 263365us-seq-list-082310 (2).txt

```

Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
      35      40      45
aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
      50      55      60
ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
      65      70      75
tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
      80      85      90      95
aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt ggc ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
      100      105      110
ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
      115      120      125
gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
      130      135      140
ttt ctc ttc ctg ggc a
Phe Leu Phe Leu Gly
      145
<210> 73
<211> 448
<212> DNA
<213> Culex pipiens pipiens strain Bruges B (S)
<220>
<221> CDS
<222> (3)..(446)
<400> 73
ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
      1      5      10      15
gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
      20      25      30
ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
      35      40      45
aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
      50      55      60
ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
      65      70      75

```

## 263365us-seq-list-082310 (2).txt

```

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287
ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
80 85 90 95

aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt ggc ttc tac tcc 335
lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
100 105 110

ggg act gcc acg ttg gac gtg tac gat cat cgg acg ctg gcc tcg gag 383
gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
115 120 125

gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
130 135 140

ttt ctc ttc ctg ggc ac 448
phe Leu phe Leu Gly
145

<210> 74
<211> 447
<212> DNA
<213> Culex pipiens pipiens strain Heteren (S)

<220>
<221> CDS
<222> (3)..(446)

<400> 74
ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47
gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
1 5 10 15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95
val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
20 25 30

ctc cgg ttt cga cat cca cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
35 40 45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac aca gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239
phe Gly Asp phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca agg ccg agg ccc 287
ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
80 85 90 95

aag aat gcc gct gtc atg ctg tgg atc ttt ggg ggt ggc ttc tac tcc 335
lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
100 105 110

ggg act gcc acg ttg gac gtg tac gac cat cgg acg ctg gcc tcg gaa 383
gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
115 120 125

gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431

```

Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

ttt ctc ttc ctg ggc a  
 Phe Leu Phe Leu Gly  
 145

447

&lt;210&gt; 75

&lt;211&gt; 450

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain Ling (S)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(447)

&lt;400&gt; 75

cag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag 48  
 Gln Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
 1 5 10 15

gtg gac gcc tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 96  
 Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
 20 25 30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 144  
 Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
 35 40 45

aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg 192  
 Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
 50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc 240  
 Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
 65 70 75 80

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc 288  
 Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
 85 90 95

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc 336  
 Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
 100 105 110

ggg act gcc acg ctg gac gtg tat gac cac cgg acg ctg gcc tcg gag 384  
 Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
 115 120 125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 432  
 Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

ttt ctc ttc ctg ggc aca  
 Phe Leu Phe Leu Gly  
 145

450

&lt;210&gt; 76

&lt;211&gt; 448

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain Mao (S)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (3)..(446)

&lt;400&gt; 76

```

ac ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag      47
  Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
    1             5             10             15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg      95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20             25             30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg     143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
                35             40             45

aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg     191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
                50             55             60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc     239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
                65             70             75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc     287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
    80             85             90             95

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc     335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
                100             105             110

ggg act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag     383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
                115             120             125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt     431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
                130             135             140

ttt ctc ttc ctg ggc ac                                             448
Phe Leu Phe Leu Gly
    145

```

&lt;210&gt; 77

&lt;211&gt; 433

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain TemR (S)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(432)

&lt;400&gt; 77

```

aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag gtg gac      48
Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp
    1             5             10             15

gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg ctc cgg     96
Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg
                20             25             30

```

## 263365us-seq-list-082310 (2).txt

```

ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg 144
Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala
      35              40              45

acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg ttc ggt 192
Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly
      50              55              60

gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc tcg gag 240
Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu
      65              70              75

gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc aag aat 288
Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn
      85              90              95

gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc ggg act 336
Ala Ala Val Met Leu Trp Ile Phe Gly Gly Phe Tyr Ser Gly Thr
      100             105             110

gcc acg ctg gac gtg tac gac cac cgg acg ctg acc tcg gag gag aac 384
Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Thr Ser Glu Glu Asn
      115             120             125

gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt ttt ctc t 433
Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu
      130             135             140

<210> 78
<211> 448
<212> DNA
<213> Culex torrentium strain Uppsala

<220>
<221> CDS
<222> (3)..(446)

<400> 78
ag ggc aaa atc cgt gga acg aca ctg gaa gcg cca agt gga aag aag 47
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
      1              5              10              15

gtg gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
      20              25              30

ctt cgg ttt cga cat cca cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
      35              40              45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtc gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
      50              55              60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccc ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
      65              70              75

tcg gaa gac tgt ctg tac atc aac gtt gtg gtg cca cgg ccg agg ccc 287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
      80              85              90              95

```

263365us-seq-list-082310 (2).txt

```

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt gga ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
100 105 110

ggg acc gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
115 120 125

gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
130 135 140

ttt ctc ttc ctg ggc ac 448
Phe Leu Phe Leu Gly
145

<210> 79
<211> 448
<212> DNA
<213> Culex pipiens quinquefasciatus strain Trans (S)

<220>
<221> CDS

<222> (3)..(446)

<400> 79
ag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag 47
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys
1 5 10 15

gtg gac gca tgg atg ggc att ccg tac gcg cag cct ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
20 25 30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
35 40 45

aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc 287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
80 85 90 95

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
100 105 110

ggg act gcc acg ctg gac gtg tac gac cac cgg acg ctg acc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Thr Ser Glu
115 120 125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
130 135 140

```



ttt ctc ttc ctg ggc ac  
Phe Leu Phe Leu Gly  
145

<210> 80  
<211> 412  
<212> DNA  
<213> Culex pipiens quinquefasciatus strain BED (S)

<220>  
<221> CDS  
<222> (1)..(411)

<400> 80  
aca ctg gaa gcg cct agt gga aag aag gtg gac gca tgg atg ggc att 48  
Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
1 5 10 15  
ccg tac gcg cag cct ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga 96  
Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
20 25 30  
ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa cca ccc aac 144  
Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
35 40 45  
tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc 192  
Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
50 55 60  
acc atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc 240  
Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
65 70 75 80  
aac gtg gtc gtg cca ccg ccc agg ccc aag aat gcc gcc gtc atg ctg 288  
Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
85 90 95  
tgg atc ttc ggg ggt ggc ttc tac tcc ggg act gcc acg ctg gac gtg 336  
Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
100 105 110  
tac gac cac ccg acg ctg gcc tcg gag gag aac gtg atc gta gtt tcg 384  
Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
115 120 125  
ctg cag tac cgt gtc gca agt ctt ggt t 412  
Leu Gln Tyr Arg Val Ala Ser Leu Gly  
130 135

<210> 81  
<211> 437  
<212> DNA  
<213> Culex pipiens quinquefasciatus strain BSQ (S)

<220>  
<221> CDS  
<222> (3)..(434)

<400> 81  
ag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag 47  
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
1 5 10 15

263365us-seq-list-082310 (2).txt

```

gtg gac gcc tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro
                20                25                30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu
                35                40                45

aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val
                50                55                60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc 239
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu
                65                70                75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc 287
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro
                80                85                90

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt ggc ttc tac tcc 335
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser
                100                105                110

ggg act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag 383
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu
                115                120                125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggg 431
Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly
                130                135                140

ttt ctc 437
Phe

<210> 82
<211> 414
<212> DNA
<213> Culex pipiens quinquefasciatus strain Brazza (S)

<220>
<221> CDS
<222> (2)..(412)

<400> 82
a ctg gaa gcg cct agt gga aag aag gtg gac gcc tgg atg ggc att ccg 49
  Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro
    1                5                10                15

tac gcg cag ccc ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga ccc 97
Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro
                20                25                30

gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa ccg ccc aac tcc 145
Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser
                35                40                45

tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc acc 193
Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr
                50                55                60

atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc aac 241

```

## 263365us-seq-list-082310 (2).txt

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
65 70 75 80

gtg gtc gtg cca cgg ccc agg ccc aag aat gcc gcc gtc atg ctg tgg 289  
Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
85 90 95

atc ttc ggg ggt ggc ttc tac tcc ggg act gcc acg ctg gac gtg tac 337  
Ile Phe Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
100 105 110

gac cac cgg acg ctg gcc tcg gag gac aac gtg atc gta gtt tcg ctg 385  
Asp His Arg Thr Leu Ala Ser Glu Asn Val Ile Val Val Ser Leu  
115 120 125

cag tac cgt gtc gca agt ctt ggg ttt ct 414  
Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135

&lt;210&gt; 83

&lt;211&gt; 437

&lt;212&gt; DNA

&lt;213&gt; Culex pipiens quinquefasciatus strain Bouake (R)

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (3) .. (434)

&lt;400&gt; 83

ag ggc aaa atc cgt gga acg aca ctg gaa gcg cct agt gga aag aag 47  
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
1 5 10 15

gtg gac gca tgg atg ggc att ccg tac gcg cag ccc ccg ctg ggt ccg 95  
Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
20 25 30

ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg acc ggt gtg ctg 143  
Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
35 40 45

aac gcg acc aaa ccg ccc aac tcc tgc gtc cag atc gtg gac acc gtg 191  
Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
50 55 60

ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg aac aca ccg ctc 239  
Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
65 70 75

tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca cgg ccc agg ccc 287  
Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
80 85 90 95

aag aat gcc gcc gtc atg ctg tgg atc ttc ggg ggt gcc ttc tac tcc 335  
Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
100 105 110

ggg act gcc acg ctg gac gtg tac gac cac cgg acg ctg gcc tcg gag 383  
Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
115 120 125

gag aac gtg atc gta gtt tcg ctg cag tac cgt gtc gca agt ctt ggt 431  
Page 59

Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

ttt ctc  
 Phe

437

<210> 84  
 <211> 416  
 <212> DNA  
 <213> Culex pipiens quinquefasciatus strain Thai (S)

<220>  
 <221> CDS  
 <222> (1)..(414)

<400> 84  
 aca ctg gaa gcg cct agt gga aag aag gtg gac gcc tgg atg ggc att 48  
 Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
 1 5 10 15  
 ccg tac gcg cag ccc ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga 96  
 Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
 20 25 30  
 ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa ccg ccc aac 144  
 Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
 35 40 45  
 tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc 192  
 Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
 50 55 60  
 acc atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc 240  
 Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
 65 70 75 80  
 aac gtg gtc gtg cca ccg ccc agg ccc aag aat gcc gcc gtc atg ctg 288  
 Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
 85 90 95  
 tgg atc ttc ggg ggt ggc ttc tac tcc ggg act gcc acg ctg gac gtg 336  
 Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
 100 105 110  
 tac gac cac ccg acg ctg gcc tcg gag gag aac gtg atc gta gtt tcg 384  
 Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
 115 120 125  
 ctg cag tac cgt gtc gca agt ctt ggg ttt ct 416  
 Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135

<210> 85  
 <211> 426  
 <212> DNA  
 <213> Culex pipiens quinquefasciatus strain Madurai (S)

<220>  
 <221> CDS  
 <222> (3)..(425)

<400> 85  
 ca ctg gaa gcg cct agt gga aag aag gtg gac gca tgg atg ggc att 47  
 Page 60

## 263365us-seq-list-082310 (2).txt

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Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile
 1          5          10          15

ccg tac gcg cag ccc ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga 95
Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg
                20                25                30

ccc gcc gaa aga tgg acc ggt gtg ctg aac gca acc aaa ccg ccc aac 143
Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn
                35                40                45

tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc 191
Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala
                50                55                60

acc atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc 239
Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile
                65                70                75

aac gtg gtc gtg cca cgg ccc agg ccc aag aat gcc gcc gtc atg ctg 287
Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu
                80                85                90                95

tgg atc ttc ggg ggt ggc ttc tac tcc ggg act gcc acg ctg gac gtg 335
Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val
                100                105                110

tac gac cac cgg acg ctg gcc tcg gag gag aac gtg atc gta gtt tcg 383
Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser
                115                120                125

ctg cag tac cgt gtc gca agt ctt ggg ttt ctc ttc ctg ggc a 426
Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly
                130                135                140

<210> 86
<211> 423
<212> DNA
<213> Culex pipiens quinquefasciatus strain Recife (R)

<220>
<221> CDS
<222> (1)..(423)

<400> 86
ctg gaa gcg cct agc gga aag aag gtg gac gca tgg atg ggc att ccg 48
Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro
 1          5          10          15

tac gcg cag cct ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga ccc 96
Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro
                20                25                30

gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa ccg ccc aac tcc 144
Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser
                35                40                45

tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc acc 192
Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr
                50                55                60

atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc aac 240

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## 263365us-seq-list-082310 (2).txt

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
65 70 75 80

gtg gtc gtg cca cgg ccc agg ccc aag aat gcc gcc gtc atg ctg tgg 288  
Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
85 90 95

atc ttc ggg ggt agc ttc tac tcc ggg act gcc acg ctg gac gtg tac 336  
Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
100 105 110

gac cac cgg acg ctg gcc tcg gag gag aac gtg atc gta gtt tcg ctg 384  
Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu  
115 120 125

cag tac cgt gtc gca agt ctt ggt ttt ctc ttc ctg ggc 423  
Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly  
130 135 140

<210> 87

<211> 416

<212> DNA

<213> Culex pipiens quinquefasciatus strain Brasil (S)

<220>

<221> CDS

<222> (3)..(413)

<400> 87

ca ctg gaa gcg cct agt gga aag aag gtg gac gca tgg atg ggc att 47  
Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
1 5 10 15

ccg tac gcg cag ccc ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga 95  
Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
20 25 30

ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa ccg ccc aac 143  
Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
35 40 45

tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc 191  
Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
50 55 60

acc atg tgg aac ccg aac aca ccg ctc tcg gag gac tgt ctg tac atc 239  
Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
65 70 75

aac gtg gtc gtg cca cgg ccc agg ccc aag aat gcc gcc gtc atg ctg 287  
Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
80 85 90 95

tgg atc ttc ggg ggt ggc ttc tat tcc ggg act gcc acg ctg gac gtg 335  
Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
100 105 110

tac gac cac cgg acg ctg gcc tcg gag gag aac gtg atc gta gtt tcg 383  
Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
115 120 125

ctg cag tac cgt gtc gca agt ctt ggg ttt ctc 416  
Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe

130

<210> 88  
<211> 418  
<212> DNA  
<213> Culex pipiens quinquefasciatus strain Moorea (S)

<220>  
<221> CDS  
<222> (1)..(417)

<400> 88  
aca ctg gaa gcg cct agt gga aag aag gtg gac gca tgg atg ggc att 48  
Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
1 5 10 15  
ccg tac gcg cag cct ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga 96  
Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
20 25 30  
ccc gcc gaa aga tgg acc ggt gtg ctg aac gcg acc aaa ccg ccc aac 144  
Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
35 40 45  
tcc tgc gtc cag atc gtg gac acc gtg ttc ggt gac ttc ccg ggg gcc 192  
Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
50 55 60  
acc atg tgg aac ccg aac aca ccg ctc tgc gag gac tgt ctg tac atc 240  
Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
65 70 75 80  
aac gtg gtc gtg cca cgg ccc agg ccc aag aat gcc gcc gtc atg ctg 288  
Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
85 90 95  
tgg atc ttc ggg ggt ggc ttc tac tcc ggg act gcc acg ctg gac gtg 336  
Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
100 105 110  
tac gac cac cgg acg ctg gcc tgc gag gag aac gtg atc gta gtt tgc 384  
Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
115 120 125  
ctg cag tac cgt gtc gca agt ctt ggg ttt ctc t 418  
Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu  
130 135

<210> 89  
<211> 402  
<212> DNA  
<213> Culex pipiens pipiens strain killcare (S)

<220>  
<221> CDS  
<222> (1)..(402)

<400> 89  
agt gga aag aag gtg gac gca tgg atg ggc att ccg tac gcg cag ccc 48  
Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro  
1 5 10 15  
ccg ctg ggt ccg ctc cgg ttt cga cat ccg cga ccc gcc gaa aga tgg 96  
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263365us-seq-list-082310 (2).txt

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Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp
    20                      25                      30
acc ggt gtg ctg aac gcg acc aaa cca ccc aac tcc tgc gtc cag atc 144
Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile
    35                      40                      45
gtg gac aca gtg ttc ggt gac ttc ccg ggg gcc acc atg tgg aac ccg 192
Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro
    50                      55                      60
aac aca ccc ctc tcg gag gac tgt ctg tac atc aac gtg gtc gtg cca 240
Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro
    65                      70                      75
agg ccg agg ccc aag aat gcc gct gtc atg ctg tgg atc ttc ggg ggt 288
Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly
    85                      90                      95
ggc ttc tac tcc ggg act gcc acg ttg gac gtg tac gat cat cgg acg 336
Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr
    100                      105                      110
ctg gcc tcg gag gag aac gtg atc gtg gtt tcg ctg cag tac cgt gtc 384
Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val
    115                      120                      125
gca agt ctt ggt ttt ctc
Ala Ser Leu Gly Phe Leu
    130

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<210> 90

<211> 152

<212> PRT

<213> Culex pipiens pipiens strain Espro (R)

<400> 90

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Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val
  1                      5                      10                      15
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu
    20                      25                      30
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn
    35                      40                      45
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe
    50                      55                      60
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser
    65                      70                      75                      80
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys
    85                      90                      95
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly
    100                      105                      110
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu
    115                      120                      125

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Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140

Leu Phe Leu Gly Thr Pro Glu Ala  
 145 150

<210> 91

<211> 152

<212> PRT

<213> Culex pipiens quinquefasciatus strain ProR(S)

<400> 91

Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
 1 5 10 15

Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
 20 25 30

Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
 35 40 45

Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
 50 55 60

Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
 65 70 75 80

Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
 85 90 95

Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
 100 105 110

Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
 115 120 125

Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

Phe Leu Phe Leu Gly Thr Pro Glu  
 145 150

<210> 92

<211> 148

<212> PRT

<213> Culex pipiens pipiens strain S-LAB (S)

<400> 92

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60

Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80

263365us-seq-list-082310 (2).txt

Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
85 90 95

Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
100 105 110

Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
115 120 125

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140

Leu Phe Leu Gly  
145

<210> 93  
<211> 152  
<212> PRT  
<213> Culex pipiens pipiens strain Padova (R)

<400> 93  
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
50 55 60

Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
65 70 75 80

Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
85 90 95

Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly  
100 105 110

Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
115 120 125

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140

Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 94  
<211> 154  
<212> PRT  
<213> Culex pipiens pipiens strain Praias (R)

<400> 94  
Asp Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys  
1 5 10 15

Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly  
20 25 30

263365us-seq-list-082310 (2).txt

Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val  
35 40 45  
Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr  
50 55 60  
Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro  
65 70 75 80  
Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg  
85 90 95  
Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr  
100 105 110  
Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser  
115 120 125  
Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu  
130 135 140  
Gly Phe Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 95

<211> 154

<212> PRT

<213> Culex pipiens quinquefasciatus strain Supercar (R)

<400> 95

Asp Lys Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys  
1 5 10 15  
Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly  
20 25 30  
Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val  
35 40 45  
Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr  
50 55 60  
Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro  
65 70 75 80  
Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg  
85 90 95  
Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr  
100 105 110  
Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser  
115 120 125  
Glu Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu  
130 135 140  
Gly Phe Leu Phe Leu Gly Thr Pro Glu Ala  
145 150

<210> 96

<211> 148

<212> PRT

<213> Culex pipiens pipiens strain Bruges A (S)

<400> 96

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140  
 Leu Phe Leu Gly  
 145

<210> 97

<211> 152

<212> PRT

<213> Culex pipiens quinquefasciatus strain B0 (R)

<400> 97

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 Page 68

115

120

125

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140

Leu Phe Leu Gly Thr Pro Glu Ala  
 145 150

&lt;210&gt; 98

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain DJI (R)

&lt;400&gt; 98

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60

Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80

Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95

Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly  
 100 105 110

Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140

Leu Phe Leu Gly  
 145

&lt;210&gt; 99

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Harare (R)

&lt;400&gt; 99

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60

Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 Page 69

65											70											75											80
Glu	Asp	Cys	Leu	Tyr <sub>85</sub>	Ile	Asn	Val	Val	Val <sub>90</sub>	Pro	Arg	Pro	Arg	Pro <sub>95</sub>	Lys																		
Asn	Ala	Ala	Val <sub>100</sub>	Met	Leu	Trp	Ile	Phe <sub>105</sub>	Gly	Gly	Ser	Phe	Tyr <sub>110</sub>	Ser	Gly																		
Thr	Ala	Thr <sub>115</sub>	Leu	Asp	Val	Tyr	Asp <sub>120</sub>	His	Arg	Thr	Leu	Ala <sub>125</sub>	Ser	Glu	Glu																		
Asn	Val <sub>130</sub>	Ile	Val	Val	Ser	Leu <sub>135</sub>	Gln	Tyr	Arg	Val	Ala <sub>140</sub>	Ser	Leu	Gly	Phe																		
Leu <sub>145</sub>	Phe	Leu	Gly	Thr	Pro <sub>150</sub>	Glu	Ala																										

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<210> 100
<211> 152
<212> PRT
<213> Culex pipiens quinquefasciatus strain Martinique (R)
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<400> 100
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val
  1      5      10
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu
      20      25
Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn
      35      40      45
Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe
      50      55
Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser
      65      70      75      80
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys
      85      90      95
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly
      100      105      110
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu
      115      120      125
Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe
      130      135      140
Leu Phe Leu Gly Thr Pro Glu Ala
      145      150

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<210> 101
<211> 148
<212> PRT
<213> Culex pipiens pipiens strain Barriol (R)
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<400> 101  
Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
1 5 10 15  
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
Page 70

20

25

30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
           35                          40                          45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
           50                          55                          60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
           65                          70                          75                          80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
                           85                          90                          95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly  
                           100                          105                          110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
           115                          120                          125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
           130                          135                          140  
 Leu Phe Leu Gly  
 145

&lt;210&gt; 102

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens pipiens strain Bleuete (S)

&lt;400&gt; 102

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
   1                          5                          10                          15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
           20                          25                          30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
           35                          40                          45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
           50                          55                          60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
           65                          70                          75                          80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
                           85                          90                          95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
                           100                          105                          110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
           115                          120                          125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
           130                          135                          140  
 Leu Phe Leu Gly  
 145

&lt;210&gt; 103

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens pipiens strain Bruges B (S)

&lt;400&gt; 103

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140  
 Leu Phe Leu Gly  
 145

&lt;210&gt; 104

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens pipiens strain Heteren (S)

&lt;400&gt; 104

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125



115

120

125

Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140

Leu Phe Leu Gly  
 145

&lt;210&gt; 105

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Ling (S)

&lt;400&gt; 105

Gln Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys  
 1 5 10 15

Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro  
 20 25 30

Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu  
 35 40 45

Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val  
 50 55 60

Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu  
 65 70 75 80

Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro  
 85 90 95

Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
 100 105 110

Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu  
 115 120 125

Glu Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135 140

Phe Leu Phe Leu Gly  
 145

&lt;210&gt; 106

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Mao (S)

&lt;400&gt; 106

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60

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Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
65 70 75 80  
Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
85 90 95  
Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
100 105 110  
Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
115 120 125  
Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140  
Leu Phe Leu Gly  
145

<210> 107

<211> 144

<212> PRT

<213> Culex pipiens quinquefasciatus strain TemR (S)

<400> 107

Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp  
1 5 10 15  
Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg  
20 25 30  
Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala  
35 40 45  
Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly  
50 55 60  
Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu  
65 70 75 80  
Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn  
85 90 95  
Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr  
100 105 110  
Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Thr Ser Glu Glu Asn  
115 120 125  
Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu  
130 135 140

<210> 108

<211> 148

<212> PRT

<213> Culex torrentium strain Uppsala

<400> 108

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
1 5 10 15  
Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
20 25 30

263365us-seq-list-082310 (2).txt

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140  
 Leu Phe Leu Gly  
 145

<210> 109  
 <211> 148  
 <212> PRT  
 <213> Culex pipiens quinquefasciatus strain Trans (S)

<400> 109  
 Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Thr Ser Glu Glu  
 115 120 125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140  
 Leu Phe Leu Gly  
 145

<210> 110  
 <211> 137  
 <212> PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain BED (S)

&lt;400&gt; 110

Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
 1 5 10 15  
 Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
 20 25 30  
 Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
 35 40 45  
 Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
 50 55 60  
 Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
 65 70 75 80  
 Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
 85 90 95  
 Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
 100 105 110  
 Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
 115 120 125  
 Leu Gln Tyr Arg Val Ala Ser Leu Gly  
 130 135

&lt;210&gt; 111

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain BSQ (S)

&lt;400&gt; 111

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15  
 Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30  
 Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45  
 Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60  
 Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80  
 Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95  
 Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110  
 Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125  
 Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135 140

&lt;210&gt; 112

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Brazza (S)

&lt;400&gt; 112

Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro  
 1 5 10 15

Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro  
 20 25 30

Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser  
 35 40 45

Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr  
 50 55 60

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
 65 70 75 80

Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
 85 90 95

Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
 100 105 110

Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu  
 115 120 125

Gln Tyr Arg Val Ala Ser Leu Gly Phe  
 130 135

&lt;210&gt; 113

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Bouake (R)

&lt;400&gt; 113

Gly Lys Ile Arg Gly Thr Thr Leu Glu Ala Pro Ser Gly Lys Lys Val  
 1 5 10 15

Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu  
 20 25 30

Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp Thr Gly Val Leu Asn  
 35 40 45

Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe  
 50 55 60

Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser  
 65 70 75 80

Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Arg Pro Arg Pro Lys  
 85 90 95

Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly  
 100 105 110

Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr Leu Ala Ser Glu Glu  
 115 120 125

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Asn Val Ile Val Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135 140

<210> 114

<211> 138

<212> PRT

<213> Culex pipiens quinquefasciatus strain Thai (S)

<400> 114

Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
1 5 10 15

Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
20 25 30

Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
35 40 45

Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
50 55 60

Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
65 70 75 80

Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
85 90 95

Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
100 105 110

Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
115 120 125

Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135

<210> 115

<211> 141

<212> PRT

<213> Culex pipiens quinquefasciatus strain Madurai (S)

<400> 115

Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro  
1 5 10 15

Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro  
20 25 30

Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser  
35 40 45

Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr  
50 55 60

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
65 70 75 80

Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
85 90 95

Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
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100

105

110

Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu  
 115 120 125

Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly  
 130 135 140

&lt;210&gt; 116

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Recife (R)

&lt;400&gt; 116

Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro  
 1 5 10 15

Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro  
 20 25 30

Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser  
 35 40 45

Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr  
 50 55 60

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
 65 70 75 80

Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
 85 90 95

Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
 100 105 110

Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu  
 115 120 125

Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly  
 130 135 140

&lt;210&gt; 117

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Culex pipiens quinquefasciatus strain Brasil (S)

&lt;400&gt; 117

Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro  
 1 5 10 15

Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro  
 20 25 30

Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser  
 35 40 45

Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr  
 50 55 60

Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn  
 65 70 75 80

263365us-seq-list-082310 (2).txt

Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp  
85 90 95

Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr  
100 105 110

Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser Leu  
115 120 125

Gln Tyr Arg Val Ala Ser Leu Gly Phe  
130 135

<210> 118

<211> 139

<212> PRT

<213> Culex pipiens quinquefasciatus strain Moorea (S)

<400> 118

Thr Leu Glu Ala Pro Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile  
1 5 10 15

Pro Tyr Ala Gln Pro Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg  
20 25 30

Pro Ala Glu Arg Trp Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn  
35 40 45

Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
50 55 60

Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
65 70 75 80

Asn Val Val Val Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
85 90 95

Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
100 105 110

Tyr Asp His Arg Thr Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
115 120 125

Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu  
130 135

<210> 119

<211> 134

<212> PRT

<213> Culex pipiens pipiens strain killcare (S)

<400> 119

Ser Gly Lys Lys Val Asp Ala Trp Met Gly Ile Pro Tyr Ala Gln Pro  
1 5 10 15

Pro Leu Gly Pro Leu Arg Phe Arg His Pro Arg Pro Ala Glu Arg Trp  
20 25 30

Thr Gly Val Leu Asn Ala Thr Lys Pro Pro Asn Ser Cys Val Gln Ile  
35 40 45

Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro  
50 55 60



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Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro  
65 70 75 80  
Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu Trp Ile Phe Gly Gly  
85 90 95  
Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val Tyr Asp His Arg Thr  
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<210> 120  
<211> 2527  
<212> DNA  
<213> Anopheles gambiae strain YAO

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 <211> 2214  
 <212> DNA  
 <213> Anopheles gambiae strain YAO

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 <221> CDS  
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<400> 121  
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 atg gtt ccg ctg ggt ctg ctc ggc gtg acc gcg ctg cta cta atc ctg 96  
 Met Val Pro Leu Gly Leu Leu Gly Val Thr Ala Leu Leu Leu Ile Leu  
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 35 40 45  
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 50 55 60  
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 Ser Ser Gln Ser Ala Gln Ser Gly Ser Leu Ala Ser Gly Val Met Ser  
 65 70 75 80  
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 Ser Val Pro Ala Ala Gly Ala Ser Ser Ser Ser Ser Ser Ser Leu Leu  
 85 90 95  
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 130 135 140  
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 Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala  
 145 150 155 160  
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 Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg  
 165 170 175  
 ggc att acg gtc gat gcc ccc agc ggc aag aag gtg gac gtg tgg ctc 576  
 Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu  
 180 185 190

## 263365us-seq-list-082310 (2).txt

ggc att ccc tac gcc cag ccg ccg gtc ggg ccg cta cgg ttc cgt cat	624
Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His	
195 200 205	
ccg cgg ccg gcc gaa aag tgg acc ggc gtg ctg aac acg acc aca ccg	672
Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro	
210 215 220	
ccc aac agc tgc gtg cag atc gtg gac acc gtg ttc ggc gac ttc ccg	720
Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro	
225 230 235 240	
ggc gcg acc atg tgg aac ccg aac acg ccc ctg tcc gag gac tgt ctg	768
Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu	
245 250 255	
tac att aac gtg gtg gca ccg ccg ccc cgg ccc aag aat gcg gcc gtc	816
Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val	
260 265 270	
atg ctg tgg atc ttc ggc ggc agc ttc tac tcc ggc acc gcc acc ctg	864
Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu	
275 280 285	
gac gtg tac gac cac ccg gcg ctt gcg tcg gag gag aac gtg atc gtg	912
Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val	
290 295 300	
gtg tcg ctg cag tac cgc gtg gcc agt ctg ggc ttc ctg ttt ctc ggc	960
Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly	
305 310 315 320	
acc ccg gaa gcg ccg ggc aat gcg gga ctg ttc gat cag aac ctt gcg	1008
Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala	
325 330 335	
cta cgc tgg gtg ccg gac aac att cac ccg ttc ggt ggt gat ccg tcg	1056
Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser	
340 345 350	
cgc gtg aca ctg ttc ggc gag agt gcc ggt gcc gtc tcg gtg tcg ctg	1104
Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu	
355 360 365	
cat ctg ctg tcc gcc ctt tcc cgc gat ctg ttc cag ccg gcc atc ctg	1152
His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu	
370 375 380	
cag agc ggc tcg ccg acg gca ccg tgg gca ttg gta tcg cgc gag gaa	1200
Gln Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu	
385 390 395 400	
gcc acg cta aga gca ctg ccg ttg gcc gag gcg gtc ggc tgc ccg cac	1248
Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys Pro His	
405 410 415	
gaa ccg agc aag ctg agc gat gcg gtc gag tgt ctg cgc ggc aag gat	1296
Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp	
420 425 430	
ccg cac gtg ctg gtc aac aac gag tgg ggc acg ctc ggc att tgc gag	1344
Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu	
435 440 445	

## 263365us-seq-list-082310 (2).txt

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Phe	Pro	Phe	Val	Pro	Val	Val	Asp	Gly	Ala	Phe	Leu	Asp	Glu	Thr	Pro	
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cag	cgt	tcg	ctc	gcc	agc	ggg	cgc	ttc	aag	aag	acg	gag	atc	ctc	acc	1440
Gln	Arg	Ser	Leu	Ala	Ser	Gly	Arg	Phe	Lys	Lys	Thr	Glu	Ile	Leu	Thr	
	465				470					475					480	
ggc	agc	aac	acg	gag	gag	ggc	tac	tac	ttc	atc	atc	tac	tac	ctg	acc	1488
Gly	Ser	Asn	Thr	Glu	Glu	Gly	Tyr	Tyr	Phe	Ile	Ile	Tyr	Tyr	Leu	Thr	
				485					490					495		
gag	ctg	ctg	cgc	aag	gag	gag	ggc	gtg	acc	gtg	acg	cgc	gag	gag	ttc	1536
Glu	Leu	Leu	Arg	Lys	Glu	Glu	Gly	Val	Thr	Val	Thr	Arg	Glu	Glu	Phe	
			500					505					510			
ctg	cag	gag	gtg	cgc	gag	ctc	aac	ccg	tac	gtg	aac	ggg	gag	gcc	cgg	1584
Leu	Gln	Ala	Val	Arg	Glu	Leu	Asn	Pro	Tyr	Val	Asn	Gly	Ala	Ala	Arg	
		515					520					525				
cag	gag	atc	gtg	ttc	gag	tac	acc	gac	tgg	acc	gag	ccg	gac	aac	ccg	1632
Gln	Ala	Ile	Val	Phe	Glu	Tyr	Thr	Asp	Trp	Thr	Glu	Pro	Asp	Asn	Pro	
	530					535					540					
aac	agc	aac	cgg	gac	gag	ctg	gac	aag	atg	gtg	ggc	gac	tat	cac	ttc	1680
Asn	Ser	Asn	Arg	Asp	Ala	Leu	Asp	Lys	Met	Val	Gly	Asp	Tyr	His	Phe	
	545				550				555						560	
acc	tgc	aac	gtg	aac	gag	ttc	gag	cag	cgg	tac	gcc	gag	gag	ggc	aac	1728
Thr	Cys	Asn	Val	Asn	Glu	Phe	Ala	Gln	Arg	Tyr	Ala	Glu	Glu	Gly	Asn	
				565					570					575		
aac	gtc	tac	atg	tat	ctg	tac	acg	cac	cgc	agc	aaa	ggc	aac	ccg	tgg	1776
Asn	Val	Tyr	Met	Tyr	Leu	Tyr	Thr	His	Arg	Ser	Lys	Gly	Asn	Pro	Trp	
			580					585				590				
ccg	cgc	tgg	acg	ggc	gtg	atg	cac	ggc	gac	gag	atc	aac	tac	gtg	ttc	1824
Pro	Arg	Trp	Thr	Gly	Val	Met	His	Gly	Asp	Glu	Ile	Asn	Tyr	Val	Phe	
		595					600					605				
ggc	gaa	ccg	ctc	aac	ccc	acc	ctc	ggc	tac	acc	gag	gac	gag	aaa	gac	1872
Gly	Glu	Pro	Leu	Asn	Pro	Thr	Leu	Gly	Tyr	Thr	Glu	Asp	Glu	Lys	Asp	
	610					615					620					
ttt	agc	cgg	aag	atc	atg	cga	tac	tgg	tct	aac	ttt	gcc	aaa	acc	ggc	1920
Phe	Ser	Arg	Lys	Ile	Met	Arg	Tyr	Trp	Ser	Asn	Phe	Ala	Lys	Thr	Gly	
	625				630					635					640	
aat	cca	aac	ccc	aac	aca	gcc	agc	agc	gaa	ttc	ccc	gag	tgg	ccc	aag	1968
Asn	Pro	Asn	Pro	Asn	Thr	Ala	Ser	Ser	Glu	Phe	Pro	Glu	Trp	Pro	Lys	
				645					650					655		
cac	acc	gcc	cac	gga	cgg	cac	tat	ctg	gag	ctg	ggc	ctc	aac	acg	tcc	2016
His	Thr	Ala	His	Gly	Arg	His	Tyr	Leu	Glu	Leu	Gly	Leu	Asn	Thr	Ser	
			660					665				670				
ttc	gtc	ggg	cgg	ggc	cca	cgg	tgg	agg	cag	tgt	gcc	ttc	tgg	aag	aag	2064
Phe	Val	Gly	Arg	Gly	Pro	Arg	Leu	Arg	Gln	Cys	Ala	Phe	Trp	Lys	Lys	
		675					680					685				
tac	ctt	ccc	cag	cta	ggt	gca	gct	acc	tgg	aac	cta	cca	ggg	cca	gca	2112
Tyr	Leu	Pro	Gln	Leu	Val	Ala	Ala	Thr	Ser	Asn	Leu	Pro	Gly	Pro	Ala	

690  
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Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg Pro Asp  
705 710 715 720  
ctg atc gtg ctg ctg gtg tgc ctg ctt acg gcg acc gtc aga ttc ata 2208  
Leu Ile Val Leu Leu Val Ser Leu Leu Thr Ala Thr Val Arg Phe Ile  
725 730 735  
caa taa 2214  
Gln

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<212> PRT  
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Pro Pro Ser Ala Leu Val Gln Gly Arg His His Glu Leu Asn Asn Gly  
35 40 45  
Ala Ala Ile Gly Ser His Gln Leu Ser Ala Ala Ala Gly Val Gly Leu  
50 55 60  
Ser Ser Gln Ser Ala Gln Ser Gly Ser Leu Ala Ser Gly Val Met Ser  
65 70 75 80  
Ser Val Pro Ala Ala Gly Ala Ser Ser Ser Ser Ser Ser Leu Leu  
85 90 95  
Ser Ser Ser Ala Glu Asp Asp Val Ala Arg Ile Thr Leu Ser Lys Asp  
100 105 110  
Ala Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser Ala Arg  
115 120 125  
Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser Gly Ala  
130 135 140  
Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala  
145 150 155 160  
Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg  
165 170 175  
Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu  
180 185 190  
Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His  
195 200 205  
Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro  
210 215 220  
Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro  
Page 85

225                      230                      235                      240  
 Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu  
                                  245                      250                      255  
 Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val  
                                  260                      265                      270  
 Met Leu Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu  
                                  275                      280                      285  
 Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val  
                                  290                      295                      300  
 Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly  
                                  305                      310                      315                      320  
 Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala  
                                  325                      330                      335  
 Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser  
                                  340                      345                      350  
 Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu  
                                  355                      360                      365  
 His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu  
                                  370                      375                      380  
 Gln Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu  
                                  385                      390                      395                      400  
 Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys Pro His  
                                  405                      410                      415  
 Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp  
                                  420                      425                      430  
 Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu  
                                  435                      440                      445  
 Phe Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro  
                                  450                      455                      460  
 Gln Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr  
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 Gly Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr  
                                  485                      490                      495  
 Glu Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe  
                                  500                      505                      510  
 Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg  
                                  515                      520                      525  
 Gln Ala Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro  
                                  530                      535                      540  
 Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe  
                                  545                      550                      555                      560  
 Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn

565

570

575

Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp  
                   580                                  585                  590  
 Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe  
                   595                                  600                  605  
 Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp  
                   610                                  615                  620  
 Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly  
                   625                                  630                  635                  640  
 Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp Pro Lys  
                                   645                                  650                  655  
 His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Ser  
                                   660                                  665                  670  
 Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys  
                   675                                  680                  685  
 Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly Pro Ala  
                   690                                  695                  700  
 Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg Pro Asp  
                   705                                  710                  715                  720  
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 <212> DNA  
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<220>  
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<400> 124  
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20

<210> 125  
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&lt;213&gt; Anopheles gambiae strain KISUMU

&lt;220&gt;

&lt;221&gt; CDS

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&lt;400&gt; 125

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1 5 10 15	
atg gtt ccg ctg ggt ctg ctc ggc gtg acc gcg ctg cta cta atc ctg	96
Met Val Pro Leu Gly Leu Leu Gly Val Thr Ala Leu Leu Ile Leu	
20 25 30	
cca ccc tcc gcg ctg gtg cag ggc cgg cac cac gag ctc aac aat ggt	144
Pro Pro Ser Ala Leu Val Gln Gly Arg His His Glu Leu Asn Asn Gly	
35 40 45	
gcc gcc atc gga tcg cat cag ctg tcg gct gcc gcc ggt gtt ggc ctt	192
Ala Ala Ile Gly Ser His Gln Leu Ser Ala Ala Ala Gly Val Gly Leu	
50 55 60	
tcc tcc cag tcc gcc cag tcc gga tcg ctc gca tcc ggt gtg atg tca	240
Ser Ser Gln Ser Ala Gln Ser Gly Ser Leu Ala Ser Gly Val Met Ser	
65 70 75 80	
tcc gtt cct gct gcc gga gcg tca tcc tcc tcc tcg tcg tcg ctg ctg	288
Ser Val Pro Ala Ala Gly Ala Ser Ser Ser Ser Ser Ser Leu Leu	
85 90 95	
tca tcg tca gcc gag gac gac gtg gcg cgc att act ctc agc aag gac	336
Ser Ser Ser Ala Glu Asp Asp Val Ala Arg Ile Thr Leu Ser Lys Asp	
100 105 110	
gca gac gca ttt ttt aca cca tat ata ggt cac ggt gag tcc gta cga	384
Ala Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser Val Arg	
115 120 125	
att ata gat gcc gag ttg ggc acg ctc gag cat gtc cac agt gga gca	432
Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser Gly Ala	
130 135 140	
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Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala	
145 150 155 160	
aac gac aac gat ccg ctg gtg gtc aac acg gat aag ggg cgc atc cgc	528
Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg	
165 170 175	
ggc att acg gtc gat gcg ccc agc ggc aag aag gtg gac gtg tgg ctc	576
Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu	
180 185 190	
ggc att ccc tac gcc cag ccg ccg gtc ggg ccg tta cgg ttc cgt cat	624
Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His	
195 200 205	
ccg cgg ccg gcc gaa aag tgg acc ggc gtg ctg aac acg acc aca ccg	672
Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro	
210 215 220	



## 263365us-seq-list-082310 (2).txt

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ggc gcg acc atg tgg aac ccg aac acg ccc ctg tcc gag gac tgt ctg Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu 245 250 255	768
tac att aac gtg gtg gca ccg cga ccc cgg ccc aag aat gcg gcc gtc Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val 260 265 270	816
atg ctg tgg atc ttc ggc ggc ggc ttc tac tcc ggc acc gcc acc ctg Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu 275 280 285	864
gac gtg tac gac cac ccg gcg ctt gcg tcc gag gag aac gtg atc gtg Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val 290 295 300	912
gtg tcc ctg cag tac cgc gtg gcc agt ctg ggc ttc ctg ttt ctc ggc Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly 305 310 315 320	960
acc ccg gaa gcg ccg ggc aat gcg gga ctg ttc gat cag aac ctt gcg Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala 325 330 335	1008
cta cgc tgg gtg ccg gac aac att cac ccg ttc ggt ggt gat ccg tcc Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser 340 345 350	1056
cgt gtg aca ctg ttc ggc gag agt gcc ggt gcc gtc tcc gtg tcc ctg Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu 355 360 365	1104
cat ctg ctg tcc gcc ctg tcc cgc gat ctg ttc cag ccg gcc atc ctg His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu 370 375 380	1152
cag agc ggc tcc ccg acg gca ccg tgg gca ttg gta tcc cgc gag gaa Gln Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu 385 390 395 400	1200
gcc acg cta aga gca ctg ccg ttg gcc gag gcg gtc ggc tgc ccg cac Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys Pro His 405 410 415	1248
gaa ccg agc aag ctg agc gat gcg gtc gag tgt ctg cgc ggc aag gat Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp 420 425 430	1296
ccg cac gtg ctg gtc aac aac gag tgg ggc acg ctc ggc att tgc gag Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu 435 440 445	1344
ttc ccg ttc gtg ccg gtg gtc gac ggt gcg ttc ctg gac gag acg ccg Phe Pro Phe Val Pro Val Asp Gly Ala Phe Leu Asp Glu Thr Pro 450 455 460	1392
cag cgt tcc ctc gcc agc ggg cgc ttc aag aag acg gag atc ctc acc Gln Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr 465 470 475 480 485 490	1440

## 263365us-seq-list-082310 (2).txt

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gag ctg ctg cgc aag gag gag ggc gtg acc gtg acg cgc gag gag ttc	Glu Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe	500	505	1536
ctg cag gcg gtg cgc gag ctc aac ccg tac gtg aac ggg gcg gcc ccg	Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg	515	520	1584
cag gcg atc gtg ttc gag tac acc gac tgg acc gag ccg gac aac ccg	Gln Ala Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro	530	535	1632
aac agc aac cgc gac gcg ctg gac aag atg gtg ggc gac tat cac ttc	Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe	545	550	1680
acc tgc aac gtg aac gag ttc gcg cag cgg tac gcc gag gag ggc aac	Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn	565	570	1728
aac gtc tac atg tat ctg tac acg cac cgc agc aaa ggc aac ccg tgg	Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp	580	585	1776
ccg cgc tgg acg ggc gtg atg cac ggc gac gag atc aac tac gtg ttc	Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe	595	600	1824
ggc gaa ccg ctc aac ccc acc ctc ggc tac acc gag gac gag aaa gac	Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp	610	615	1872
ttt agc cgg aag atc atg cga tac tgg tct aac ttt gcc aaa acc ggc	Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly	625	630	1920
aat cca aat ccc aac acg gcc agc agc gaa ttc ccc gag tgg ccc aag	Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp Pro Lys	645	650	1968
cac acc gcc cac gga cgg cac tat ctg gag ctg ggc ctc aac acg tcc	His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Ser	660	665	2016
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tac ctt ccc cag cta gtt gca gct acc tcg aac cta cca ggg cca gca	Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly Pro Ala	690	695	2112
ccg ccc agt gaa ccg tgc gaa agc agc gca ttt ttt tac cga cct gat	Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg Pro Asp	705	710	2160
ctg atc gtg ctg ctg gtg tcg ctg ctt acg gcg acc gtc aga ttc ata				2208

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 Gln

2214

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 <212> PRT  
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 35 40 45  
 Ala Ala Ile Gly Ser His Gln Leu Ser Ala Ala Ala Gly Val Gly Leu  
 50 55 60  
 Ser Ser Gln Ser Ala Gln Ser Gly Ser Leu Ala Ser Gly Val Met Ser  
 65 70 75 80  
 Ser Val Pro Ala Ala Gly Ala Ser Ser Ser Ser Ser Ser Leu Leu  
 85 90 95  
 Ser Ser Ser Ala Glu Asp Asp Val Ala Arg Ile Thr Leu Ser Lys Asp  
 100 105 110  
 Ala Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser Val Arg  
 115 120 125  
 Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser Gly Ala  
 130 135 140  
 Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala  
 145 150 155 160  
 Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg  
 165 170 175  
 Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu  
 180 185 190  
 Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His  
 195 200 205  
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## 263365us-seq-list-082310 (2).txt

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## 263365us-seq-list-082310 (2).txt

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## 263365us-seq-list-082310 (2).txt

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 195 200 205

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 210 215 220

Gly Ser Ala Thr Leu Asp Ile Tyr Asp Pro Lys Ile Leu Val Ser Glu  
 225 230 235 240

Glu Asn Val Ile Leu Val Ser Met Gln Tyr Arg Val Ala Ser Leu Gly  
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250

255

Phe Leu Tyr Phe Asp Thr Glu Asp Val Pro Gly Asn Ala Gly Leu Phe  
260 265 270

Asp Gln Leu Met Ala Leu Gln Trp Val His Glu Asn Ile Lys Leu Phe  
275 280 285

Gly Gly Asn Pro Asn Asn Val Thr Leu Phe Gly Glu Ser Ala Gly Ala  
290 295 300

Val Ser Val Ser Leu His Leu Leu Ser Pro Leu Ser Arg Asn Leu Phe  
305 310 315 320

Asn Gln Ala Ile Met Glu Ser Gly Ser Ser Thr Ala Pro Trp Ala Ile  
325 330 335

Leu Ser Arg Glu Glu Ser Phe Asn Arg Gly Leu Lys Leu Ala Lys Ala  
340 345 350

Met Gly Cys Pro Asp Asp Arg Asn Thr Ile His Lys Thr Val Glu Cys  
355 360 365

Leu Arg Lys Ala Asn Ser Ser Val Met Val Glu Lys Glu Trp Asp His  
370 375 380

Val Ala Ile Cys Phe Phe Pro Phe Val Pro Val Val Asp Gly Ala Phe  
385 390 395 400

Leu Asp Asp His Pro Gln Lys Ser Leu Ser Thr Asn Asn Phe Lys Lys  
405 410 415

Thr Asn Ile Leu Met Gly Ser Asn Ser Glu Glu Gly Tyr Tyr Ser Ile  
420 425 430

Phe Tyr Tyr Leu Thr Glu Leu Phe Lys Lys Glu Glu Asn Val Met Val  
435 440 445

Ser Arg Glu Asn Phe Ile Lys Ala Ile Gly Gln Leu Asn Pro Asn Ala  
450 455 460

Asp Ala Ala Val Lys Ser Ala Ile Glu Phe Glu Tyr Thr Asp Trp Phe  
465 470 475 480

Ser Pro Asn Asp Pro Glu Lys Asn Arg Asn Ala Leu Asp Lys Met Val  
485 490 495

Gly Asp Tyr Gln Phe Thr Cys Asn Val Asn Glu Phe Ala His Lys Tyr  
 500 505 510

Ala Leu Thr Gly Asn Asn Val Tyr Met Tyr Tyr Phe Lys His Arg Ser  
 515 520 525

Leu Asn Asn Pro Trp Pro Lys Trp Thr Gly Val Met His Gly Asp Glu  
 530 535 540

Ile Ser Tyr Val Phe Gly Asp Pro Leu Asn Pro Asn Lys Arg Tyr Glu  
 545 550 555 560

Ile Glu Glu Ile Glu Leu Ser Lys Lys Met Met Arg Tyr Trp Thr Asn  
 565 570 575

Phe Ala Lys Thr Gly Asn Pro Ser Lys Thr Leu Glu Gly Ser Trp Val  
 580 585 590

Thr Pro Lys Trp Pro Val His Thr Ala Tyr Gly Lys Glu Phe Leu Thr  
 595 600 605

Leu Asp Thr Asn Asn Thr Ser Ile Gly Val Gly Pro Arg Leu Glu Gln  
 610 615 620

Cys Ala Phe Trp Lys Asn Tyr Val Pro Asp Leu Thr Ala Ile Ser Lys  
 625 630 635 640

Ser Met Lys Ser Asp Lys Asn Cys Thr Thr Ile Ser Gly Gly Thr Lys  
 645 650 655

Thr Asn Val Ile Glu Leu Ser Val Trp Thr Ile Val Met Thr Thr Ala  
 660 665 670

Val Leu Met Leu  
 675

<210> 131  
 <211> 737  
 <212> PRT  
 <213> Schizaphis graminum

<400> 131

Met Glu Ile Arg Gly Leu Leu Met Gly Arg Leu Arg Leu Gly Arg Arg  
 1 5 10 15

Met Val Pro Leu Gly Leu Leu Gly Val Thr Ala Leu Leu Leu Ile Leu  
 20 25 30

## 263365us-seq-list-082310 (2).txt

Pro Pro Ser Ala Leu Val Gln Gly Arg His His Glu Leu Asn Asn Gly  
 35 40 45

Ala Ala Ile Gly Ser His Gln Leu Ser Ala Ala Ala Gly Val Gly Leu  
 50 55 60

Ser Ser Gln Ser Ala Gln Ser Gly Ser Leu Ala Ser Gly Val Met Ser  
 65 70 75 80

Ser Val Pro Ala Ala Gly Ala Ser Ser Ser Ser Ser Ser Leu Leu  
 85 90 95

Ser Ser Ser Ala Glu Asp Asp Val Ala Arg Ile Thr Leu Ser Lys Asp  
 100 105 110

Ala Asp Ala Phe Phe Thr Pro Tyr Ile Gly His Gly Glu Ser Val Arg  
 115 120 125

Ile Ile Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser Gly Ala  
 130 135 140

Thr Pro Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala  
 145 150 155 160

Asn Asp Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg  
 165 170 175

Gly Ile Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu  
 180 185 190

Gly Ile Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His  
 195 200 205

Pro Arg Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro  
 210 215 220

Pro Asn Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro  
 225 230 235 240

Gly Ala Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu  
 245 250 255

Tyr Ile Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val  
 260 265 270

Met Leu Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu  
 275 280 285

263365us-seq-list-082310 (2).txt

Asp Val Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val  
 290 295 300  
 Val Ser Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly  
 305 310 315 320  
 Thr Pro Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala  
 325 330 335  
 Leu Arg Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser  
 340 345 350  
 Arg Val Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu  
 355 360 365  
 His Leu Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu  
 370 375 380  
 Gln Ser Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu  
 385 390 395 400  
 Ala Thr Leu Arg Ala Leu Arg Leu Ala Glu Ala Val Gly Cys Pro His  
 405 410 415  
 Glu Pro Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp  
 420 425 430  
 Pro His Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu  
 435 440 445  
 Phe Pro Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro  
 450 455 460  
 Gln Arg Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr  
 465 470 475 480  
 Gly Ser Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr  
 485 490 495  
 Glu Leu Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe  
 500 505 510  
 Leu Gln Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg  
 515 520 525  
 Gln Ala Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro  
 530 535 540

263365us-seq-list-082310 (2).txt

Asn Ser Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe  
545 550 555 560

Thr Cys Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn  
565 570 575

Asn Val Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp  
580 585 590

Pro Arg Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe  
595 600 605

Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp  
610 615 620

Phe Ser Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly  
625 630 635 640

Asn Pro Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp Pro Lys  
645 650 655

His Thr Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Ser  
660 665 670

Phe Val Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys  
675 680 685

Tyr Leu Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly Pro Ala  
690 695 700

Pro Pro Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg Pro Asp  
705 710 715 720

Leu Ile Val Leu Leu Val Ser Leu Leu Thr Ala Thr Val Arg Phe Ile  
725 730 735

Gln

<210> 132  
<211> 676  
<212> PRT  
<213> Schizaphis graminum

<400> 132

Met Asp Gln Trp Leu Leu Trp Phe Gly Tyr Leu Val Ala Ser Thr Tyr  
1 5 10 15

263365us-seq-list-082310 (2).txt

Gly Leu Ser Leu Arg His Ala Arg His Gln Ser Val Gly Thr Pro Thr  
20 25 30

Ala Glu Glu Ile Leu Glu Pro Gln Ile Leu Ile Glu Asp Thr Asp His  
35 40 45

Val Phe Arg Gln Arg Ala Ser Asp Met Phe Ala Gln Glu Pro Glu Tyr  
50 55 60

Thr Glu Lys Arg Asn Leu Asn His Arg Arg Arg Ser Glu Phe Ser Gly  
65 70 75 80

Asn Gln Asp Thr Asp Phe Ala Ser Ser Gly Glu Thr Tyr Ser Ala Tyr  
85 90 95

Thr Ser Asp Asp Pro Leu Ile Ile His Thr Asn Lys Gly Lys Ile Arg  
100 105 110

Gly Ile Thr Gln Thr Ala Thr Thr Gly Lys Leu Val Asp Ala Trp Leu  
115 120 125

Gly Ile Pro Tyr Ala Lys Lys Pro Ile Gly Asp Leu Arg Phe Arg His  
130 135 140

Pro Arg Pro Ile Asp Arg Trp Asp Thr Thr Thr Pro Glu Thr Ile Leu  
145 150 155 160

Asn Cys Thr Thr Pro Pro Asn Thr Cys Val Gln Ile Phe Asp Thr Leu  
165 170 175

Phe Gly Asp Phe Pro Gly Ala Thr Met Trp Asn Pro Asn Ser Pro Val  
180 185 190

Ser Glu Asp Cys Leu Tyr Ile Asn Val Val Val Pro Lys Pro Arg Pro  
195 200 205

Gln Asn Ala Ala Val Met Val Trp Ile Phe Gly Gly Gly Phe Tyr Ser  
210 215 220

Gly Ser Ala Thr Leu Asp Ile Tyr Asp Pro Lys Ile Leu Val Ser Glu  
225 230 235 240

Glu Asn Val Ile Leu Val Ser Met Gln Tyr Arg Val Ala Ser Leu Gly  
245 250 255

Phe Leu Tyr Phe Asp Thr Glu Asp Val Pro Gly Asn Ala Gly Leu Phe  
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Asp Gln Leu Met Ala Leu Gln Trp Val His Glu Asn Ile Lys Leu Phe  
275 280 285

Gly Gly Asn Pro Asn Asn Val Thr Leu Phe Gly Glu Ser Ala Gly Ala  
290 295 300

Val Ser Val Ser Leu His Leu Leu Ser Pro Leu Ser Arg Asn Leu Phe  
305 310 315 320

Asn Gln Ala Ile Met Glu Ser Gly Ser Ser Thr Ala Pro Trp Ala Ile  
325 330 335

Leu Ser Arg Glu Glu Ser Phe Asn Arg Gly Leu Lys Leu Ala Lys Ala  
340 345 350

Met Gly Cys Pro Asp Asp Arg Asn Thr Ile His Lys Thr Val Glu Cys  
355 360 365

Leu Arg Lys Ala Asn Ser Ser Val Met Val Glu Lys Glu Trp Asp His  
370 375 380

Val Ala Ile Cys Phe Phe Pro Phe Val Pro Val Val Asp Gly Ala Phe  
385 390 395 400

Leu Asp Asp His Pro Gln Lys Ser Leu Ser Thr Asn Asn Phe Lys Lys  
405 410 415

Thr Asn Ile Leu Met Gly Ser Asn Ser Glu Glu Gly Tyr Tyr Ser Ile  
420 425 430

Phe Tyr Tyr Leu Thr Glu Leu Phe Lys Lys Glu Glu Asn Val Met Val  
435 440 445

Ser Arg Glu Asn Phe Ile Lys Ala Ile Gly Gln Leu Asn Pro Asn Ala  
450 455 460

Asp Ala Ala Val Lys Ser Ala Ile Glu Phe Glu Tyr Thr Asp Trp Phe  
465 470 475 480

Ser Pro Asn Asp Pro Glu Lys Asn Arg Asn Ala Leu Asp Lys Met Val  
485 490 495

Gly Asp Tyr Gln Phe Thr Cys Asn Val Asn Glu Phe Ala His Lys Tyr  
500 505 510



263365us-seq-list-082310 (2).txt

Ala Leu Thr Gly Asn Asn Val Tyr Met Tyr Tyr Phe Lys His Arg Ser  
515 520 525

Leu Asn Asn Pro Trp Pro Lys Trp Thr Gly Val Met His Gly Asp Glu  
530 535 540

Ile Ser Tyr Val Phe Gly Asp Pro Leu Asn Pro Asn Lys Arg Tyr Glu  
545 550 555 560

Ile Glu Glu Ile Glu Leu Ser Lys Lys Met Met Arg Tyr Trp Thr Asn  
565 570 575

Phe Ala Lys Thr Gly Asn Pro Ser Lys Thr Leu Glu Gly Ser Trp Val  
580 585 590

Thr Pro Lys Trp Pro Val His Thr Ala Tyr Gly Lys Glu Phe Leu Thr  
595 600 605

Leu Asp Thr Asn Asn Thr Ser Ile Gly Val Gly Pro Arg Leu Glu Gln  
610 615 620

Cys Ala Phe Trp Lys Asn Tyr Val Pro Asp Leu Thr Ala Ile Ser Lys  
625 630 635 640

Ser Met Lys Ser Asp Lys Asn Cys Thr Thr Ile Ser Gly Gly Thr Lys  
645 650 655

Thr Asn Val Ile Glu Leu Ser Val Trp Thr Ile Val Met Thr Thr Ala  
660 665 670

Val Leu Met Leu  
675

<210> 133  
<211> 645  
<212> PRT  
<213> Anopheles gambiae

<400> 133

Met Ala Ser Ala Tyr Tyr His Gln Ser Ala Val Gly Val Gly Asn Val  
1 5 10 15

Leu Val Leu Leu Leu Gly Ala Thr Val Ile Cys Pro Ala Tyr Ala Ile  
20 25 30

Ile Asp Arg Leu Val Val Gln Thr Ser Ser Gly Pro Ile Arg Gly Arg  
35 40 45

## 263365us-seq-list-082310 (2).txt

Ser Thr Met Val Gln Gly Arg Glu Val His Val Phe Asn Gly Val Pro  
 50 55 60

Phe Ala Lys Pro Pro Val Asp Ser Leu Arg Phe Lys Lys Pro Val Pro  
 65 70 75 80

Ala Glu Pro Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro Pro Ser  
 85 90 95

Cys Ile Gln Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ala Gly Glu Glu  
 100 105 110

Met Trp Asn Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Tyr Leu Asn  
 115 120 125

Ile Trp Val Pro Thr Lys Thr Arg Leu Arg His Gly Arg Gly Leu Asn  
 130 135 140

Phe Gly Ser Asn Asp Tyr Phe Gln Asp Asp Asp Asp Phe Gln Arg Gln  
 145 150 155 160

His Gln Ser Lys Gly Gly Leu Ala Met Leu Val Trp Ile Tyr Gly Gly  
 165 170 175

Gly Phe Met Ser Gly Thr Ser Thr Leu Asp Ile Tyr Asn Ala Glu Ile  
 180 185 190

Leu Ala Ala Val Gly Asn Val Ile Val Ala Ser Met Gln Tyr Arg Val  
 195 200 205

Gly Ala Phe Gly Phe Leu Tyr Leu Ala Pro Tyr Ile Asn Gly Tyr Glu  
 210 215 220

Glu Asp Ala Pro Gly Asn Met Gly Met Trp Asp Gln Ala Leu Ala Ile  
 225 230 235 240

Arg Trp Leu Lys Glu Asn Ala Lys Ala Phe Gly Gly Asp Pro Asp Leu  
 245 250 255

Ile Thr Leu Phe Gly Glu Ser Ala Gly Gly Ser Ser Val Ser Leu His  
 260 265 270

Leu Leu Ser Pro Val Thr Arg Gly Leu Ser Lys Arg Gly Ile Leu Gln  
 275 280 285

Ser Gly Thr Leu Asn Ala Pro Trp Ser His Met Thr Ala Glu Lys Ala  
 290 295 300

263365us-seq-list-082310 (2).txt

Leu Gln Ile Ala Glu Gly Leu Ile Asp Asp Cys Asn Cys Asn Leu Thr  
305 310 315 320

Met Leu Lys Glu Ser Pro Ser Thr Val Met Gln Cys Met Arg Asn Val  
325 330 335

Asp Ala Lys Thr Ile Ser Val Gln Gln Trp Asn Ser Tyr Ser Gly Ile  
340 345 350

Leu Gly Phe Pro Ser Ala Pro Thr Ile Asp Gly Val Phe Met Thr Ala  
355 360 365

Asp Pro Met Thr Met Leu Arg Glu Ala Asn Leu Glu Gly Ile Asp Ile  
370 375 380

Leu Val Gly Ser Asn Arg Asp Glu Gly Thr Tyr Phe Leu Leu Tyr Asp  
385 390 395 400

Phe Ile Asp Tyr Phe Glu Lys Asp Ala Ala Thr Ser Leu Pro Arg Asp  
405 410 415

Lys Phe Leu Glu Ile Met Asn Thr Ile Phe Asn Lys Ala Ser Glu Pro  
420 425 430

Glu Arg Glu Ala Ile Ile Phe Gln Tyr Thr Gly Trp Glu Ser Gly Asn  
435 440 445

Asp Gly Tyr Gln Asn Gln His Gln Val Gly Arg Ala Val Gly Asp His  
450 455 460

Phe Phe Ile Cys Pro Thr Asn Glu Phe Ala Leu Gly Leu Thr Glu Arg  
465 470 475 480

Gly Ala Ser Val His Tyr Tyr Tyr Phe Thr His Arg Thr Ser Thr Ser  
485 490 495

Leu Trp Gly Glu Trp Met Gly Val Leu His Gly Asp Glu Val Glu Tyr  
500 505 510

Ile Phe Gly Gln Pro Met Asn Ala Ser Leu Gln Tyr Arg Gln Arg Glu  
515 520 525

Arg Asp Leu Ser Arg Arg Met Val Leu Ser Val Ser Glu Phe Ala Arg  
530 535 540

Thr Gly Asn Pro Ala Leu Glu Gly Glu His Trp Pro Leu Tyr Thr Arg  
545 550 555 560

263365us-seq-list-082310 (2).txt

Glu Asn Pro Ile Tyr Phe Ile Phe Asn Ala Glu Gly Glu Asp Asp Leu  
565 570 575

Arg Gly Glu Lys Tyr Gly Arg Gly Pro Met Ala Thr Ser Cys Ala Phe  
580 585 590

Trp Asn Asp Phe Leu Pro Arg Leu Arg Ala Trp Ser Val Pro Leu Lys  
595 600 605

Asp Pro Cys Lys Leu Asp Asp His Thr Ser Ile Ala Ser Thr Ala Arg  
610 615 620

Ala Ala Pro Thr Val Ala Leu Leu Ile Ala Leu Ser Leu Ala Val Ala  
625 630 635 640

Arg Leu Val Ala Ala  
645

<210> 134  
<211> 664  
<212> PRT  
<213> Anopheles stephensi

<400> 134

Met Phe Val Asn Gln Arg Thr Arg Arg Pro Tyr Met Ser Val Phe Val  
1 5 10 15

Leu Val Leu Gly Ala Ala Val Ile Cys Pro Ala Tyr Gly Ile Ile Asp  
20 25 30

Arg Leu Val Val Gln Thr Ser Ser Gly Pro Ile Arg Gly Arg Ser Thr  
35 40 45

Met Val Gln Gly Arg Glu Val His Val Phe Asn Gly Val Pro Phe Ala  
50 55 60

Lys Pro Pro Val Asp Ser Leu Arg Phe Lys Lys Pro Val Pro Ala Glu  
65 70 75 80

Pro Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro Pro Ser Cys Ile  
85 90 95

Gln Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ala Gly Glu Glu Met Trp  
100 105 110

Asn Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Tyr Leu Asn Ile Trp  
115 120 125

263365us-seq-list-082310 (2).txt

Val Pro Thr Lys Thr Arg Leu Arg His Gly Arg Gly Leu Asn Phe Gly  
130 135 140

Ser Asn Asp Tyr Phe Gln Asp Asp Asp Asp Phe Gln Arg Gln His Gln  
145 150 155 160

Ser Lys Gly Gly Leu Ala Met Leu Val Trp Ile Tyr Gly Gly Gly Phe  
165 170 175

Met Ser Gly Thr Ser Thr Leu Asp Ile Tyr Asn Ala Glu Ile Leu Ala  
180 185 190

Ala Val Gly Asn Val Ile Val Ala Ser Met Gln Tyr Arg Val Gly Ala  
195 200 205

Phe Gly Phe Leu Tyr Leu Ala Pro Tyr Ile Asn Gly Tyr Glu Glu Asp  
210 215 220

Ala Pro Gly Asn Met Gly Met Trp Asp Gln Ala Leu Ala Ile Arg Trp  
225 230 235 240

Leu Lys Glu Asn Ala Lys Ala Phe Gly Gly Asp Pro Asp Leu Ile Thr  
245 250 255

Leu Phe Gly Glu Ser Ala Gly Gly Ser Ser Val Ser Leu His Leu Leu  
260 265 270

Ser Pro Val Thr Arg Gly Leu Ser Lys Arg Gly Ile Leu Gln Ser Gly  
275 280 285

Thr Leu Asn Ala Pro Trp Ser His Met Thr Ala Glu Lys Ala Leu Gln  
290 295 300

Ile Ala Glu Gly Leu Ile Asp Asp Cys Asn Cys Asn Leu Thr Met Leu  
305 310 315 320

Lys Glu Ser Pro Ser Thr Val Met Gln Cys Met Arg Asn Val Asp Ala  
325 330 335

Lys Thr Ile Ser Val Gln Gln Trp Asn Ser Tyr Ser Gly Ile Leu Gly  
340 345 350

Phe Pro Ser Ala Pro Thr Ile Asp Gly Val Phe Met Thr Ala Asp Pro  
355 360 365

Met Thr Met Leu Arg Glu Ala Asn Leu Glu Gly Ile Asp Ile Leu Val  
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Gly Ser Asn Arg Asp Glu Gly Thr Tyr Phe Leu Leu Tyr Asp Phe Ile  
385 390 395 400

Asp Tyr Phe Glu Lys Asp Ala Ala Thr Ser Leu Pro Arg Asp Lys Phe  
405 410 415

Leu Glu Ile Met Asn Thr Ile Phe Asn Lys Ala Ser Glu Pro Glu Arg  
420 425 430

Glu Ala Ile Ile Phe Gln Tyr Thr Gly Trp Glu Ser Gly Asn Asp Gly  
435 440 445

Tyr Gln Asn Gln His Gln Val Gly Arg Ala Val Gly Asp His Phe Phe  
450 455 460

Ile Cys Pro Thr Asn Glu Phe Ala Leu Gly Leu Thr Glu Arg Gly Ala  
465 470 475 480

Ser Val His Tyr Tyr Tyr Phe Thr His Arg Thr Ser Thr Ser Leu Trp  
485 490 495

Gly Glu Trp Met Gly Val Leu His Gly Asp Glu Val Glu Tyr Ile Phe  
500 505 510

Gly Gln Pro Met Asn Ala Ser Leu Gln Tyr Arg Gln Arg Glu Arg Asp  
515 520 525

Leu Ser Arg Arg Met Val Leu Ser Val Ser Glu Phe Ala Arg Thr Gly  
530 535 540

Asn Pro Ala Leu Glu Gly Glu His Trp Pro Leu Tyr Thr Arg Glu Asn  
545 550 555 560

Pro Ile Phe Phe Ile Phe Asn Ala Glu Gly Glu Asp Asp Leu Arg Gly  
565 570 575

Glu Lys Tyr Gly Arg Gly Pro Met Ala Thr Ser Cys Ala Phe Trp Asn  
580 585 590

Asp Phe Leu Pro Arg Leu Arg Ala Trp Ser Val Pro Ser Lys Ser Pro  
595 600 605

Cys Asn Leu Leu Glu Gln Met Ser Ile Ala Ser Val Ser Ser Thr Met  
610 615 620

Pro Ile Val Val Met Val Val Leu Val Leu Ile Pro Leu Cys Ala Trp  
 625 630 635 640

Trp Trp Ala Ile Lys Lys Asn Lys Thr Pro Pro His Pro Gln Val Ile  
 645 650 655

Leu Glu Thr Arg Ala Phe Met His  
 660

<210> 135  
 <211> 637  
 <212> PRT  
 <213> Aedes aegypti

<400> 135

Met Lys Met Ser Ala Val Val Arg Leu Cys Cys Asn Met Ile Ser Leu  
 1 5 10 15

Leu Leu Cys Ile Thr Val Ile Ser Pro Val Tyr Gly Ile Phe Asp Arg  
 20 25 30

Leu Val Val Gln Thr Ser Ser Gly Pro Ile Arg Gly Arg Ser Thr Met  
 35 40 45

Val Leu Gly Arg Glu Val His Val Phe Asn Gly Val Pro Phe Ala Lys  
 50 55 60

Pro Pro Val Asp Gly Leu Arg Phe Arg Lys Pro Val Pro Ala Glu Pro  
 65 70 75 80

Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro Pro Ser Cys Ile Gln  
 85 90 95

Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ala Gly Glu Glu Met Trp Asn  
 100 105 110

Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Tyr Leu Asn Ile Trp Val  
 115 120 125

Pro Thr Lys Thr Arg Leu Arg His Gly Arg Gly Leu Asn Phe Gly Asn  
 130 135 140

Asn Asp Tyr Phe Gln Asp Asp Asp Asp Phe Gln Arg Gln His Gln Ser  
 145 150 155 160

Lys Gly Gly Leu Ala Met Leu Val Trp Ile Tyr Gly Gly Gly Phe Met  
 165 170 175

Ser Gly Thr Ser Thr Leu Asp Val Tyr Asn Ala Glu Met Leu Ala Ala  
 180 185 190

Val Gly Asn Val Ile Val Ala Ser Met Gln Tyr Arg Val Gly Ser Phe  
 195 200 205

Gly Phe Phe Tyr Leu Ala Pro Tyr Leu Asn Asp Asp Asp Ala Pro Gly  
 210 215 220

Asn Val Gly Leu Trp Asp Gln Ala Leu Ala Ile Arg Trp Leu Lys Glu  
 225 230 235 240

Asn Ala Lys Ala Phe Gly Gly Asp Pro Asp Leu Ile Thr Leu Phe Gly  
 245 250 255

Glu Ser Ala Gly Gly Ser Ser Val Ser Leu His Leu Leu Ser Pro Val  
 260 265 270

Thr Arg Gly Leu Ser Arg Arg Gly Ile Leu Gln Ser Gly Thr Leu Asn  
 275 280 285

Ala Pro Trp Ser His Met Ser Ala Glu Lys Ala Leu Ser Val Ala Glu  
 290 295 300

Ala Leu Ile Asp Asp Cys Asn Cys Asn Val Thr Leu Leu Lys Asp Asn  
 305 310 315 320

Pro Asn Tyr Val Met Asn Cys Met Arg Asn Val Asp Ala Lys Thr Ile  
 325 330 335

Ser Val Gln Gln Trp Asn Ser Tyr Ser Gly Ile Leu Gly Phe Pro Ser  
 340 345 350

Ala Pro Thr Ile Asp Gly Val Phe Met Thr Ala Asp Pro Met Thr Met  
 355 360 365

Leu Arg Glu Ala Asn Leu Glu Gly Val Glu Ile Leu Val Gly Ser Asn  
 370 375 380

Arg Asp Glu Gly Thr Tyr Phe Leu Leu Tyr Asp Phe Ile Asp Tyr Phe  
 385 390 395 400

Glu Lys Asp Ala Ala Thr Ser Leu Pro Arg Asp Lys Phe Leu Glu Ile  
 405 410 415

Met Asn Thr Ile Phe Ser Lys Ala Ser Glu Pro Glu Arg Glu Ala Ile  
 420 425 430



263365us-seq-list-082310 (2).txt

Ile Phe Gln Tyr Thr Gly Trp Glu Ser Gly Asn Asp Gly Tyr Gln Asn  
435 440 445

Gln Gln Gln Val Gly Arg Ser Val Gly Asp His Phe Phe Ile Cys Pro  
450 455 460

Thr Asn Glu Phe Ala Leu Gly Leu Ala Glu Arg Gly Ala Ser Val Tyr  
465 470 475 480

Tyr Tyr Tyr Phe Thr His Arg Thr Ser Thr Ser Leu Trp Gly Glu Trp  
485 490 495

Met Gly Val Leu His Gly Asp Glu Val Glu Tyr Ile Phe Gly Gln Pro  
500 505 510

Met Asn Val Ser Met Gln Tyr Arg Gln Arg Glu Arg Asp Leu Ser Arg  
515 520 525

Arg Met Val Leu Ser Val Ser Glu Phe Ala Arg Ser Gly Asn Pro Ala  
530 535 540

Leu Glu Gly Glu His Trp Pro Val Tyr Thr Lys Glu Asn Pro Ile Tyr  
545 550 555 560

Phe Ile Phe Asn Ala Glu Gly Glu Asp Asp Leu Arg Gly Glu Lys Tyr  
565 570 575

Gly Arg Gly Pro Met Ala Thr Ala Cys Ala Phe Trp Asn Asp Phe Leu  
580 585 590

Pro Arg Leu Arg Ala Trp Ser Val Pro Pro Lys Ser Ser Cys Asn Ile  
595 600 605

Leu Glu Gln Thr Ser Ala Ala Thr Ile Leu Tyr Val Asp Ile Lys Ile  
610 615 620

Val Thr Val Leu Met Val Phe Ile Leu Val Arg Leu Tyr  
625 630 635

<210> 136  
<211> 649  
<212> PRT  
<213> Drosophila melanogaster  
  
<400> 136

Met Ala Ile Ser Cys Arg Gln Ser Arg Val Leu Pro Met Ser Leu Pro  
1 5 10 15

263365us-seq-list-082310 (2).txt

Leu Pro Leu Thr Ile Pro Leu Pro Leu Val Leu Val Leu Ser Leu His  
 20 25 30  
 Leu Ser Gly Val Cys Gly Val Ile Asp Arg Leu Val Val Gln Thr Ser  
 35 40 45  
 Ser Gly Pro Val Arg Gly Arg Ser Val Thr Val Gln Gly Arg Glu Val  
 50 55 60  
 His Val Tyr Thr Gly Ile Pro Tyr Ala Lys Pro Pro Val Glu Asp Leu  
 65 70 75 80  
 Arg Phe Arg Lys Pro Val Pro Ala Glu Pro Trp His Gly Val Leu Asp  
 85 90 95  
 Ala Thr Arg Leu Ser Ala Thr Cys Val Gln Glu Arg Tyr Glu Tyr Phe  
 100 105 110  
 Pro Gly Phe Ser Gly Glu Glu Ile Trp Asn Pro Asn Thr Asn Val Ser  
 115 120 125  
 Glu Asp Cys Leu Tyr Ile Asn Val Trp Ala Pro Ala Lys Ala Arg Leu  
 130 135 140  
 Arg His Gly Arg Gly Ala Asn Gly Gly Glu His Pro Asn Gly Lys Gln  
 145 150 155 160  
 Ala Asp Thr Asp His Leu Ile His Asn Gly Asn Pro Gln Asn Thr Thr  
 165 170 175  
 Asn Gly Leu Pro Ile Leu Ile Trp Ile Tyr Gly Gly Gly Phe Met Thr  
 180 185 190  
 Gly Ser Ala Thr Leu Asp Ile Tyr Asn Ala Asp Ile Met Ala Ala Val  
 195 200 205  
 Gly Asn Val Ile Val Ala Ser Phe Gln Tyr Arg Val Gly Ala Phe Gly  
 210 215 220  
 Phe Leu His Leu Ala Pro Glu Met Pro Ser Glu Phe Ala Glu Glu Ala  
 225 230 235 240  
 Pro Gly Asn Val Gly Leu Trp Asp Gln Ala Leu Ala Ile Arg Trp Leu  
 245 250 255  
 Lys Asp Asn Ala His Ala Phe Gly Gly Asn Pro Glu Trp Met Thr Leu  
 260 265 270

263365us-seq-list-082310 (2).txt

Phe Gly Glu Ser Ala Gly Ser Ser Ser Val Asn Ala Gln Leu Met Ser  
275 280 285

Pro Val Thr Arg Gly Leu Val Lys Arg Gly Met Met Gln Ser Gly Thr  
290 295 300

Met Asn Ala Pro Trp Ser His Met Thr Ser Glu Lys Ala Val Glu Ile  
305 310 315 320

Gly Lys Ala Leu Ile Asn Asp Cys Asn Cys Asn Ala Ser Met Leu Lys  
325 330 335

Thr Asn Pro Ala His Val Met Ser Cys Met Arg Ser Val Asp Ala Lys  
340 345 350

Thr Ile Ser Val Gln Gln Trp Asn Ser Tyr Ser Gly Ile Leu Ser Phe  
355 360 365

Pro Ser Ala Pro Thr Ile Asp Gly Ala Phe Leu Pro Ala Asp Pro Met  
370 375 380

Thr Leu Met Lys Thr Ala Asp Leu Lys Asp Tyr Asp Ile Leu Met Gly  
385 390 395 400

Asn Val Arg Asp Glu Gly Thr Tyr Phe Leu Leu Tyr Asp Phe Ile Asp  
405 410 415

Tyr Phe Asp Lys Asp Asp Ala Thr Ala Leu Pro Arg Asp Lys Tyr Leu  
420 425 430

Glu Ile Met Asn Asn Ile Phe Gly Lys Ala Thr Gln Ala Glu Arg Glu  
435 440 445

Ala Ile Ile Phe Gln Tyr Thr Ser Trp Glu Gly Asn Pro Gly Tyr Gln  
450 455 460

Asn Gln Gln Gln Ile Gly Arg Ala Val Gly Asp His Phe Phe Thr Cys  
465 470 475 480

Pro Thr Asn Glu Tyr Ala Gln Ala Leu Ala Glu Arg Gly Ala Ser Val  
485 490 495

His Tyr Tyr Tyr Phe Thr His Arg Thr Ser Thr Ser Leu Trp Gly Glu  
500 505 510

Trp Met Gly Val Leu His Gly Asp Glu Ile Glu Tyr Phe Phe Gly Gln  
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Pro Leu Asn Asn Ser Leu Gln Tyr Arg Pro Val Glu Arg Glu Leu Gly  
530 535 540

Lys Arg Met Leu Ser Ala Val Ile Glu Phe Ala Lys Thr Gly Asn Pro  
545 550 555 560

Ala Gln Asp Gly Glu Glu Trp Pro Asn Phe Ser Lys Glu Asp Pro Val  
565 570 575

Tyr Tyr Ile Phe Ser Thr Asp Asp Lys Ile Glu Lys Leu Ala Arg Gly  
580 585 590

Pro Leu Ala Ala Arg Cys Ser Phe Trp Asn Asp Tyr Leu Pro Lys Val  
595 600 605

Arg Ser Trp Ala Gly Thr Cys Asp Gly Asp Ser Gly Ser Ala Ser Ile  
610 615 620

Ser Pro Arg Leu Gln Leu Leu Gly Ile Ala Ala Leu Ile Tyr Ile Cys  
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Ala Ala Leu Arg Thr Lys Arg Val Phe  
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<210> 137  
<211> 708  
<212> PRT  
<213> Lucilia cuprina

<400> 137

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Thr Ala Thr Ser Ile Ser Ser His Ser Arg Thr Ser Arg Lys Ser Arg  
35 40 45

Tyr Thr Ser Ser Asn Leu Leu Asn Ala Phe Ala Ser Leu Thr Ser Arg  
50 55 60

Ser Ser Leu Ser Leu Ser Ser Thr Ser Ser Asn Asp Leu Tyr Arg Gly  
65 70 75 80

Phe Leu Thr Thr Leu Val Ile Leu Leu Arg Met Ser Ser Val Ala Tyr  
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Gly Ile Thr Asp Arg Leu Ile Val Gln Thr Thr Ser Gly Pro Val Arg  
100 105 110

Gly Arg Ala Val Thr Val Gln Gly Arg Glu Val His Val Phe Thr Gly  
115 120 125

Ile Pro Tyr Ala Lys Pro Pro Val Asp Asp Leu Arg Phe Arg Lys Pro  
130 135 140

Val Pro Ala Glu Pro Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro  
145 150 155 160

Ala Thr Cys Val Gln Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ser Gly  
165 170 175

Glu Glu Ile Trp Asn Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Tyr  
180 185 190

Met Asn Ile Trp Ala Pro Ala Lys Ala Arg Leu Arg His Gly Arg Gly  
195 200 205

Ala Asn Gly Gly Glu His Ser Ser Lys Thr Asp Pro Asp His Leu Ile  
210 215 220

His Ser Ala Thr Pro Gln Asn Thr Thr Asn Gly Leu Pro Ile Leu Ile  
225 230 235 240

Trp Ile Tyr Gly Gly Gly Phe Met Thr Gly Ser Ala Thr Leu Asp Ile  
245 250 255

Tyr Asn Ala Asp Ile Met Ser Ala Val Gly Asn Val Ile Val Ala Ser  
260 265 270

Phe Gln Tyr Arg Val Gly Ala Phe Gly Phe Leu His Leu Ser Pro Val  
275 280 285

Met Pro Gly Phe Glu Glu Glu Ala Pro Gly Asn Val Gly Leu Trp Asp  
290 295 300

Gln Ala Leu Ala Leu Arg Trp Leu Lys Glu Asn Ala Arg Ala Phe Gly  
305 310 315 320

Gly Asn Pro Glu Trp Met Thr Leu Phe Gly Glu Ser Ala Gly Ser Ser  
325 330 335

Ser Val Asn Ala Gln Leu Val Ser Pro Val Thr Arg Gly Leu Val Lys  
 340 345 350

Arg Gly Met Met Gln Ser Gly Thr Met Asn Ala Pro Trp Ser His Met  
 355 360 365

Thr Ser Glu Lys Ala Val Glu Ile Gly Lys Ala Leu Ile Asn Asp Cys  
 370 375 380

Asn Cys Asn Ala Ser Leu Leu Pro Ala Asn Pro Gln Ser Val Met Ala  
 385 390 395 400

Cys Met Arg Ala Val Asp Ala Lys Thr Ile Ser Val Gln Gln Trp Asn  
 405 410 415

Ser Tyr Ser Gly Ile Leu Ser Phe Pro Ser Ala Pro Thr Ile Asp Gly  
 420 425 430

Ala Phe Leu Pro Ala Asp Pro Met Thr Leu Met Lys Thr Ala Asp Met  
 435 440 445

Ser Gly Tyr Asp Ile Met Ile Gly Asn Val Lys Asp Glu Gly Thr Tyr  
 450 455 460

Phe Leu Leu Tyr Asp Phe Ile Asp Tyr Phe Asp Lys Asp Glu Ala Thr  
 465 470 475 480

Ser Leu Pro Arg Asp Lys Tyr Leu Glu Ile Met Asn Asn Ile Phe Asn  
 485 490 495

Lys Ala Thr Gln Ala Glu Arg Glu Ala Ile Ile Phe Gln Tyr Thr Ser  
 500 505 510

Trp Glu Gly Asn Pro Gly Tyr Gln Asn Gln Gln Gln Ile Gly Arg Ala  
 515 520 525

Val Gly Asp His Phe Phe Thr Cys Pro Thr Asn Glu Tyr Ala Gln Ala  
 530 535 540

Leu Ala Glu Arg Gly Ala Gln Val His Tyr Tyr Tyr Phe Thr His Arg  
 545 550 555 560

Thr Ser Thr Ser Leu Trp Gly Glu Trp Met Gly Val Leu His Gly Asp  
 565 570 575

Glu Ile Glu Tyr Phe Phe Gly Gln Pro Leu Asn Thr Ser Leu Gln Tyr  
 580 585 590

263365us-seq-list-082310 (2).txt

Arg Ala Val Glu Arg Glu Leu Gly Lys Arg Met Leu Asn Ser Val Ile  
595 600 605

Glu Phe Ala Lys Thr Gly Asn Pro Ala Val Asp Gly Glu Glu Trp Pro  
610 615 620

Asn Phe Ser Lys Glu Asp Pro Val Tyr Tyr Val Phe Ser Thr Asp Glu  
625 630 635 640

Lys Thr Glu Lys Leu Gln Arg Gly Pro Leu Ala Lys Arg Cys Ser Phe  
645 650 655

Trp Asn Asp Tyr Leu Pro Lys Val Arg Ser Trp Val Gly Ser Glu Cys  
660 665 670

Glu Asn Asn Ser Ala Glu Ser Ala Ala Val Ser Ile Ile Tyr Glu Lys  
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Gln Gln Asn Leu Leu Lys Trp Val Ile Met Leu Thr Ile Met Val Thr  
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Cys Ile Phe Gln  
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<210> 138  
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<212> PRT  
<213> Musca domestica

<400> 138

Met Ala Arg Ser Val Arg Thr Pro Ile Ser Pro Ser Ser Ser Ser Ser  
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Leu Ser Ser Phe Lys Ala Ser Leu Thr Arg Pro Ser Ser Ser Ser Ser  
35 40 45

Val Ala His His Leu Ala Ala Arg Asn Asn Asp Ile Cys Arg Gly Leu  
50 55 60

Phe Ala Thr Leu Val Ile Leu Leu Arg Met Ser Ala Leu Thr Ser Ala  
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Met Thr Asp His Leu Thr Val Gln Thr Thr Ser Gly Pro Val Arg Gly  
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263365us-seq-list-082310 (2).txt

Arg Ser Val Thr Val Gln Gly Arg Asp Val His Val Phe Thr Gly Ile  
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Pro Tyr Ala Lys Pro Pro Val Asp Asp Leu Arg Phe Arg Lys Pro Val  
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Pro Ala Glu Pro Trp His Gly Val Leu Asp Ala Thr Arg Leu Pro Ala  
130 135 140

Thr Cys Val Gln Glu Arg Tyr Glu Tyr Phe Pro Gly Phe Ser Gly Glu  
145 150 155 160

Glu Ile Trp Asn Pro Asn Thr Asn Val Ser Glu Asp Cys Leu Phe Met  
165 170 175

Asn Ile Trp Ala Pro Ala Lys Ala Arg Leu Arg His Gly Arg Gly Thr  
180 185 190

Asn Gly Gly Glu His Ser Ser Lys Thr Asp Gln Asp His Leu Ile His  
195 200 205

Ser Ala Thr Pro Gln Asn Thr Thr Asn Gly Leu Pro Ile Leu Ile Trp  
210 215 220

Ile Tyr Gly Gly Gly Phe Met Thr Gly Ser Ala Thr Leu Asp Ile Tyr  
225 230 235 240

Asn Ala Glu Ile Met Ser Ala Val Gly Asn Val Ile Val Ala Ser Phe  
245 250 255

Gln Tyr Arg Val Gly Ala Phe Gly Phe Leu His Leu Ser Pro Val Met  
260 265 270

Pro Gly Phe Glu Glu Glu Ala Pro Gly Asn Val Gly Leu Trp Asp Gln  
275 280 285

Ala Leu Ala Leu Arg Trp Leu Lys Glu Asn Ala Arg Ala Phe Gly Gly  
290 295 300

Asn Pro Glu Trp Met Thr Leu Phe Gly Glu Ser Ala Gly Ser Ser Ser  
305 310 315 320

Val Asn Ala Gln Leu Met Ser Pro Val Thr Arg Gly Leu Val Lys Arg  
325 330 335

Gly Met Met Gln Ser Gly Thr Met Asn Ala Pro Trp Ser His Met Thr  
340 345 350



263365us-seq-list-082310 (2).txt

Ser Glu Lys Ala Val Glu Ile Gly Lys Ala Leu Val Asn Asp Cys Asn  
355 360 365

Cys Asn Ala Ser Leu Leu Pro Glu Asn Pro Gln Ala Val Met Ala Cys  
370 375 380

Met Arg Gln Val Asp Ala Lys Thr Ile Ser Val Gln Gln Trp Asn Ser  
385 390 395 400

Tyr Ser Gly Ile Leu Ser Phe Pro Ser Ala Pro Thr Ile Asp Gly Ala  
405 410 415

Phe Leu Pro Ala Asp Pro Met Thr Leu Leu Lys Thr Ala Asp Leu Ser  
420 425 430

Gly Tyr Asp Ile Leu Ile Gly Asn Val Lys Asp Glu Gly Thr Tyr Phe  
435 440 445

Leu Leu Tyr Asp Phe Ile Asp Tyr Phe Asp Lys Asp Asp Ala Thr Ser  
450 455 460

Leu Pro Arg Asp Lys Tyr Leu Glu Ile Met Asn Asn Ile Phe Gln Lys  
465 470 475 480

Ala Ser Gln Ala Glu Arg Glu Ala Ile Ile Phe Gln Tyr Thr Ser Trp  
485 490 495

Glu Gly Asn Pro Gly Tyr Gln Asn Gln Gln Gln Ile Gly Arg Ala Val  
500 505 510

Gly Asp His Phe Phe Thr Cys Pro Thr Asn Glu Tyr Ala Gln Ala Leu  
515 520 525

Ala Glu Arg Gly Ala Ser Val His Tyr Tyr Tyr Phe Thr His Arg Thr  
530 535 540

Ser Thr Ser Leu Trp Gly Glu Trp Met Gly Val Leu His Gly Asp Glu  
545 550 555 560

Ile Glu Tyr Phe Phe Gly Gln Pro Leu Asn Asn Ser Leu Gln Tyr Arg  
565 570 575

Pro Val Glu Arg Glu Leu Gly Lys Arg Met Leu Asn Ser Val Ile Glu  
580 585 590

Phe Ala Lys Ser Gly Asn Pro Ala Val Asp Gly Glu Glu Trp Pro Asn  
Page 121

595

Phe Ser Lys Glu Asp Pro Val Tyr Tyr Val Phe Ser Thr Asp Glu Lys  
610 615 620

Ile Glu Lys Leu Gln Arg Gly Pro Leu Ala Lys Arg Cys Ser Phe Trp  
625 630 635 640

Asn Asp Tyr Leu Pro Lys Val Arg Ser Trp Ile Gly Ser Glu Cys Glu  
645 650 655

Asn Lys Ser Ser Thr Ser Ala Ser Ala Ala Ile Tyr Glu Met Lys Met  
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Gln Gln Leu Thr Leu Leu Ala Val Ala Ile Ile Leu Thr Met Val Asn  
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Ser Ile Phe Gln  
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<210> 139  
<211> 635  
<212> PRT  
<213> Culex pipiens

<400> 139

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20 25 30

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35 40 45

Glu Val His Val Phe Asn Gly Val Pro Phe Ala Lys Pro Pro Val Asp  
50 55 60

Gly Leu Arg Phe Gln Lys Pro Val Pro Ala Glu Pro Trp His Gly Val  
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Leu Asp Ala Thr Arg Leu Pro Pro Ser Cys Ile Gln Glu Arg Tyr Glu  
85 90 95

Tyr Phe Pro Gly Phe Ala Gly Glu Glu Met Trp Asn Pro Asn Thr Asn  
100 105 110

Val Ser Glu Asp Cys Leu Tyr Leu Asn Ile Trp Val Pro Thr Lys Thr  
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Arg Leu Arg His Gly Arg Gly Leu Asn Phe Gly Asn Asn Asp Tyr Phe  
130 135 140

Gln Asp Asp Glu Asp Phe Gln Arg Gln His Gln Ser Lys Gly Gly Leu  
145 150 155 160

Ala Met Leu Val Trp Ile Cys Gly Gly Gly Phe Met Ser Gly Thr Ser  
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Thr Leu Asp Val Tyr Asn Ala Glu Ile Leu Ala Ala Val Gly Asn Val  
180 185 190

Ile Val Ala Ser Met Gln Tyr Arg Val Gly Ala Phe Gly Phe Phe Tyr  
195 200 205

Leu Ser Pro Tyr Leu Asn Gly Arg Glu Glu Glu Ala Pro Gly Asn Val  
210 215 220

Gly Leu Trp Asp Gln Ala Leu Ala Ile Arg Trp Leu Lys Glu Asn Ala  
225 230 235 240

Lys Ala Phe Gly Gly Asp Pro Asp Leu Ile Thr Leu Phe Gly Glu Ser  
245 250 255

Ala Gly Gly Ser Ser Val Ser Leu His Leu Leu Ser Pro Ala Thr Arg  
260 265 270

Gly Leu Ser His Arg Gly Ile Leu Gln Ser Gly Thr Leu Asn Ala Pro  
275 280 285

Trp Ser His Met Thr Ala Glu Lys Ala Leu Ser Val Ala Glu Ser Leu  
290 295 300

Ile Asp Asp Cys Asn Cys Asn Val Thr Leu Leu Lys Asp Ser Pro Ser  
305 310 315 320

Ser Val Met His Cys Met Arg Asn Val Asp Ala Lys Thr Ile Ser Val  
325 330 335

Gln Gln Trp Asn Ser Tyr Ser Gly Ile Leu Gly Phe Pro Ser Ala Pro  
340 345 350

Thr Ile Asp Gly Val Phe Met Thr Ala Asp Pro Met Thr Met Leu Arg  
355 360 365

Glu Ala Asn Leu Glu Gly Ile Asp Ile Leu Val Gly Ser Asn Arg Asp  
370 375 380

Glu Gly Thr Tyr Phe Leu Leu Tyr Asp Phe Ile Asp Tyr Phe Glu Lys  
385 390 395 400

Asp Ala Ala Thr Ser Leu Pro Arg Asp Lys Phe Leu Glu Ile Met Asn  
405 410 415

Thr Ile Phe Ser Lys Ala Ser Glu Pro Glu Arg Glu Ala Ile Ile Phe  
420 425 430

Gln Tyr Thr Gly Trp Glu Ser Gly Asn Asp Gly Tyr Gln Asn Gln Gln  
435 440 445

Gln Val Gly Arg Ala Val Gly Asp His Phe Phe Ile Cys Pro Thr Asn  
450 455 460

Glu Phe Ala Leu Gly Leu Thr Glu Gln Gly Ala Ser Val His Tyr Tyr  
465 470 475 480

Tyr Phe Thr His Arg Thr Ser Thr Ser Leu Trp Gly Glu Trp Met Gly  
485 490 495

Val Leu His Gly Asp Glu Val Glu Tyr Ile Phe Gly Gln Pro Met Asn  
500 505 510

Ala Thr Leu Gln Tyr Arg Gln Arg Glu Arg Asp Leu Ser Arg Arg Met  
515 520 525

Val Leu Ser Val Ser Glu Phe Ala Arg Ser Gly Asn Pro Ala Leu Glu  
530 535 540

Gly Glu His Trp Pro Leu Tyr Thr Lys Glu Asn Pro Ile Tyr Phe Ile  
545 550 555 560

Phe Asn Ala Glu Gly Glu Asp Asp Leu Arg Gly Glu Lys Tyr Gly Arg  
565 570 575

Gly Pro Met Ala Thr Ser Cys Ala Phe Trp Asn Asp Phe Leu Pro Arg  
580 585 590

Leu Arg Ala Trp Ser Ile Pro Pro Lys Ser Ser Cys Asn Leu Leu Glu  
595 600 605

Pro Thr Ser Gly Ala Pro Val Arg Tyr Val Asp Ile Lys Val Leu Thr  
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263365us--seq-list-082310 (2).txt

Val Leu Thr Val Leu Ile Val Leu Arg Leu Phe  
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<400> 140

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20 25 30

Tyr Ala Glu Glu Gly Asn Asn Val Tyr Met Tyr Leu Tyr Thr His Arg  
35 40 45

Ser Lys Gly Asn Pro Trp Pro Arg Trp Thr Gly Val Met His Gly Asp  
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Glu Ile Asn Tyr Val Phe Gly Glu Pro Leu Asn Pro Thr Leu Gly Tyr  
65 70 75 80

Thr Glu Asp Glu Lys Asp Phe Ser Arg Lys Ile  
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<213> Culex pipiens

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263365us-seq-list-082310 (2).txt

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<400> 142

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263365us-seq-list-082310 (2).txt

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20 25 30

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35 40 45

Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg Gly Ile  
50 55 60

Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu Gly Ile  
65 70 75 80

Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His Pro Arg  
85 90 95

Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro Pro Asn  
100 105 110

Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
115 120 125

Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
130 135 140

Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
145 150 155 160

Trp Ile Phe Gly Gly Gly Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
165 170 175

Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
180 185 190

Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly Thr Pro  
195 200 205

Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala Leu Arg  
210 215 220

Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser Arg Val  
225 230 235 240

Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu His Leu  
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263365us-seq-list-082310 (2).txt

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Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp Pro His  
305 310 315 320

Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe Pro  
325 330 335

Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln Arg  
340 345 350

Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr Gly Ser  
355 360 365

Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu Leu  
370 375 380

Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu Gln  
385 390 395 400

Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln Ala  
405 410 415

Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro Asn Ser  
420 425 430

Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr Cys  
435 440 445

Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn Val  
450 455 460

Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro Arg  
465 470 475 480

Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly Glu  
485 490 495

Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp Phe Ser  
500 505 510

Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn Pro  
515 520 525



263365us-seq-list-082310 (2).txt

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Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys Tyr Leu  
565 570 575

Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly Pro Ala Pro Pro  
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595 600 605

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610 615 620

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263365us-seq-list-082310 (2).txt

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263365us-seq-list-082310 (2).txt

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Asp Ala Glu Leu Gly Thr Leu Glu His Val His Ser Gly Ala Thr Pro  
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Arg Arg Arg Gly Leu Thr Arg Arg Glu Ser Asn Ser Asp Ala Asn Asp  
35 40 45

Asn Asp Pro Leu Val Val Asn Thr Asp Lys Gly Arg Ile Arg Gly Ile  
50 55 60

Thr Val Asp Ala Pro Ser Gly Lys Lys Val Asp Val Trp Leu Gly Ile  
65 70 75 80

Pro Tyr Ala Gln Pro Pro Val Gly Pro Leu Arg Phe Arg His Pro Arg  
85 90 95

Pro Ala Glu Lys Trp Thr Gly Val Leu Asn Thr Thr Thr Pro Pro Asn  
100 105 110

Ser Cys Val Gln Ile Val Asp Thr Val Phe Gly Asp Phe Pro Gly Ala  
115 120 125

Thr Met Trp Asn Pro Asn Thr Pro Leu Ser Glu Asp Cys Leu Tyr Ile  
130 135 140

Asn Val Val Ala Pro Arg Pro Arg Pro Lys Asn Ala Ala Val Met Leu  
145 150 155 160

Trp Ile Phe Gly Gly Ser Phe Tyr Ser Gly Thr Ala Thr Leu Asp Val  
165 170 175

Tyr Asp His Arg Ala Leu Ala Ser Glu Glu Asn Val Ile Val Val Ser  
180 185 190

Leu Gln Tyr Arg Val Ala Ser Leu Gly Phe Leu Phe Leu Gly Thr Pro  
195 200 205

Glu Ala Pro Gly Asn Ala Gly Leu Phe Asp Gln Asn Leu Ala Leu Arg  
210 215 220

Trp Val Arg Asp Asn Ile His Arg Phe Gly Gly Asp Pro Ser Arg Val  
225 230 235 240

Thr Leu Phe Gly Glu Ser Ala Gly Ala Val Ser Val Ser Leu His Leu  
245 250 255

263365us-seq-list-082310 (2).txt

Leu Ser Ala Leu Ser Arg Asp Leu Phe Gln Arg Ala Ile Leu Gln Ser  
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 Gly Ser Pro Thr Ala Pro Trp Ala Leu Val Ser Arg Glu Glu Ala Thr  
 275 280 285  
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 290 295 300  
 Ser Lys Leu Ser Asp Ala Val Glu Cys Leu Arg Gly Lys Asp Pro His  
 305 310 315 320  
 Val Leu Val Asn Asn Glu Trp Gly Thr Leu Gly Ile Cys Glu Phe Pro  
 325 330 335  
 Phe Val Pro Val Val Asp Gly Ala Phe Leu Asp Glu Thr Pro Gln Arg  
 340 345 350  
 Ser Leu Ala Ser Gly Arg Phe Lys Lys Thr Glu Ile Leu Thr Gly Ser  
 355 360 365  
 Asn Thr Glu Glu Gly Tyr Tyr Phe Ile Ile Tyr Tyr Leu Thr Glu Leu  
 370 375 380  
 Leu Arg Lys Glu Glu Gly Val Thr Val Thr Arg Glu Glu Phe Leu Gln  
 385 390 395 400  
 Ala Val Arg Glu Leu Asn Pro Tyr Val Asn Gly Ala Ala Arg Gln Ala  
 405 410 415  
 Ile Val Phe Glu Tyr Thr Asp Trp Thr Glu Pro Asp Asn Pro Asn Ser  
 420 425 430  
 Asn Arg Asp Ala Leu Asp Lys Met Val Gly Asp Tyr His Phe Thr Cys  
 435 440 445  
 Asn Val Asn Glu Phe Ala Gln Arg Tyr Ala Glu Glu Gly Asn Asn Val  
 450 455 460  
 Tyr Met Tyr Leu Tyr Thr His Arg Ser Lys Gly Asn Pro Trp Pro Arg  
 465 470 475 480  
 Trp Thr Gly Val Met His Gly Asp Glu Ile Asn Tyr Val Phe Gly Glu  
 485 490 495  
 Pro Leu Asn Pro Thr Leu Gly Tyr Thr Glu Asp Glu Lys Asp Phe Ser  
 500 505 510

263365us-seq-list-082310 (2).txt

Arg Lys Ile Met Arg Tyr Trp Ser Asn Phe Ala Lys Thr Gly Asn Pro  
515 520 525

Asn Pro Asn Thr Ala Ser Ser Glu Phe Pro Glu Trp Pro Lys His Thr  
530 535 540

Ala His Gly Arg His Tyr Leu Glu Leu Gly Leu Asn Thr Ser Phe Val  
545 550 555 560

Gly Arg Gly Pro Arg Leu Arg Gln Cys Ala Phe Trp Lys Lys Tyr Leu  
565 570 575

Pro Gln Leu Val Ala Ala Thr Ser Asn Leu Pro Gly Pro Ala Pro Pro  
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Ser Glu Pro Cys Glu Ser Ser Ala Phe Phe Tyr Arg Pro Asp Leu Ile  
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 gagaacgtta tcgt 194